THE

MEDICAL AND SURGICAL REPORTER.

No. 1447.] PHILADELPHIA, NOVEMBER 22, 1884. [Vol. LI.—No. 21.

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

PRACTICAL RECOMMENDATIONS FOR THE EXCLUSION AND PREVENTION OF ASIATIC CHOLERA.*

BY JOHN H. RAUCH, M. D., SECRETARY ILLINOIS STATE BOARD OF HEALTH.

A grave responsibility rests upon those charged with the protection of the public health at the present time. For the past six years—ever since the memorable fever-summer of 1878—the country has been free from any serious and widespread epidemic disease. Small-pox, which prevailed from 1880 to 1883, has been successfully combated, and its ravages confined to proportions which are insignificant when compared with many other epidemics.

However, there is a revival of public interest in these matters within the past few months, due to the spread of Asiatic cholera in Southern Europe; and it is our present duty, as sanitary officials, to utilize and direct that interest to the securing of adequate legislation and intelligent action for the prevention of the introduction of the pestilence to our shores, and its limitation, should it unfortunately effect an entrance. Much has already been done in the latter direction, by the action of State and local health authorities in pushing the sanitary education of the people through circulars, memoranda and other modes of appeal. Since the second of July last such circulars from sixteen States and from the Dominion of Canada have already come under my notice. In many instances, sanitary inspections of municipalities, public institutions, jails, almshouses, and kindred establishments, have been ordered and carried out, with the view of securing the abatement of nuisances and remedying defects in the sanitary conditions thence disclosed. An amount of sanitary work has been thus already accomplished, which, aside from any consideration of cholera, will be of great value in reducing sickness and mortality from the entire list of diseases which are caused or favored by filth and other unsanitary conditions. As a recent number of the *New York Medical Record* says: "There is no doubt that the extra cleanliness produced by the cholera scare will effect a saving of life from other filth diseases far in excess of the mortality from the cholera itself, unless, indeed, it should spread beyond all expectation."

This work should be continued, and the measures which have already been inaugurated, looking to improvement in general and local sanitation, should be pushed with unabated vigor during the favorable weather we may yet have; and they should be resumed with redoubled energy whenever climatic conditions permit. It is not necessary to go into details as to this work: we are familar with its requirements and its necessity. It is a work of continuous interest and importance, whether cholera should come or not.

With theories and speculation as to the causation of cholera, or as to its mode of diffusion and epidemic spread in the countries of the Old World, this Conference is not concerned. It is enough for us to know, as the basis of our action, and the foundation for practical recommendations and advice, that the disease is not indigenous to this

*Read at the opening of the National Conference of State Boards of Health at St. Louis, October 13-15, 1884.

continent; that it is an exotic, and has never yet visited us except by importation, and that only after ample warning.

It may be entirely true that, if all our food-supplies were wholesome, and our water-supplies not only unpolluted, but unpollutable; if sewage and refuse disposal were prompt and complete; if our cities, towns, and villages were all models of sanitary perfection, and their inhabitants free from predisposition or susceptibility, acquired or inherited—in short, that if there were no ignorance, nor poverty, nor filth, nor infirmity in the land, we might dispense with precautions against the introduction of disease.

But the sanitary millennium is not yet, and we are hardly likely to witness its advent before next spring or summer, no matter how earnestly we may labor for it. So, for the present, at least, as a practical sanitarian accustomed to deal with conditions as they actually exist, I think the wise thing to do in respect of cholera is to resist the first beginnings—obsta principiis.

That cholera *will* come, it is our duty to assume. Mindful of the history of every previous cholera epidemic, we must accept as beyond a doubt—if experience is worth anything—the certainty that the disease will be brought to our shores. It always has come, sooner or later, whenever, since 1832, the contagion has obtained such a foothold in Europe as it now has.

It is probable that we do not know how widely spread the disease is upon the continent, nor what places and ports are infected. The London *Lancet* recently stated that it has transpired that there were deaths from Asiatic cholera in Marseilles during 1883, and Dr. Albert Drysdale, health officer at Mentone, writes to that journal corroborating the statement from his own personal observation, having been taken to see a case in October, 1883, by a medical friend. Attendants, nurses and all others cognizant of the facts, were sworn to secresy. Still more recently French naval officers have frankly stated that cholera existed on their vessels at Toulon long before the fact was made known last spring. In 1873 the existence of cholera was concealed in Austria on account of the great Vienna exposition, and although the disease is now known to have been spreading from place to place from early in the spring, it was not until midsummer that any warning was sounded of an epidemic which caused 240,000 deaths in the Austrian dominions alone.

I repeat that we may not know how widely spread the disease now is on the European continent, and that we do not know how soon its arrival on our own shores may be announced. It is not probable, however, that it will reach us before next spring, and we may pretty safely count on some months yet in which to push our preparations to meet it and to resist its advance.

I began my remarks with the statement that a grave responsibility rests upon the sanitarian at the present juncture; but there is an equally weighty obligation resting upon the public and upon our legislators. I undertake to say, as a sanitary official of nearly twenty-five years' experience in the practical administration of sanitary matters in city, state and nation—and after more than a third of a century of study and observation of the disease, beginning in 1850—that Asiatic cholera may be practically excluded from the United States; that it is pre-eminently a quarantinable disease; that, with a judicious employment of agencies which have already been tested, Asiatic cholera may be quite as successfully dealt with in this country as small-pox, and probably more so than yellow fever.

Whether cholera shall be excluded—whether the means and agencies necessary to deal with it shall be supplied—are questions which the public must answer through their representatives in Congress, in State legislatures, and in their municipal councils; and I propose in the remaining portion of these remarks to endeavor to point out what means and agencies are necessary to the end in view; promising that, in their consideration, it should be remembered that sanitary science is comparatively modern; that the sanitary organizations of the present day had no existence in the days of the great epidemic visitations of cholera in this country; that within the past few years there has been a rapid and widespread diffusion of sanitary knowledge among the people; and that, even so lately as the last cholera epidemic in the United States, that of 1873, no organized effort was made to prevent the importation of the disease, and practically little or nothing done to prevent its extension; certainly, no such measures have ever been employed, either to prevent its introduction or to limit its spread, as we have recently successfully employed against small-pox and yellow fever.

Asiatic cholera—so far as this country is concerned—is pre-eminently a quarantinable disease. Unlike the virus of small-pox, unlike the poison of yellow fever, the morbific potency of the cause of Asiatic cholera—whatever that cause may be—is sharply limited as to duration. Failing to find suitable conditions for its growth and reproduc-

tion it *dies out*. No single case, no single shipload of cases ever succeeded in establishing an epidemic in this country. I know this is contrary to the received opinion and popular belief; but I ask you to follow me in a brief resumé of the facts concerning each epidemic, beginning with 1832. That epidemic is attributed to the ship Carrick, which arrived at the Grosse Isle quarantine station in the St. Lawrence river on the third day of June, 1832. But six days before that, the ship Elizabeth had arrived with 200 immigrants on board, and having had twenty cholera deaths during the voyage. Fourteen days before the Elizabeth the Robert had arrived, with ten cholera deaths; and sixteen days before the Robert—that is on the 28th of April, thirty-six days before the arrival of the Carrick—the ship Constantia arrived, having had twenty-nine cholera deaths during the voyage. These are all known to have been cholera-infected vessels, and their hundreds of passengers were known to be cholera-carriers; but these passengers are only a small fraction of the 30,000 immigrants who arrived in the St. Lawrence during the spring and early summer of 1832, from the same infected localities, and sailing from the same infected ports, as the passengers of the Constantia, the Robert, the Elizabeth, and the Carrick. And yet they failed to develop a single case in Canada or elsewhere until the 8th day of June. The introduction of the disease into New York is attributed to Canada; but the same class of immigrants from the same localities in Europe, were arriving in New York during the spring of '32, as those in the St. Lawrence. And yet no case of the disease occurred in the city or vicinity until June 13th.

No single case of cholera, no one shipload of cases, has ever yet sufficed to establish an epidemic of Asiatic cholera on this continent. It has only been after repeated importations of the contagion in the persons of thousands of immigrants and in their infected baggage and household goods, that it has effected a lodgment, and has reproduced itself and multiplied into an active epidemic agency.

Hence my first proposition, that, for this country, the disease is essentially and preëminently a quarantinable disease, and may be practically excluded. If it were true of the cholera poison, as it is of the small-pox contagion, that favorable conditions for its spread exist wherever a susceptible individual is found, without reference to the sanitary surroundings, we should have no such history as I have just recited—a history of repeated importations, extending over months and months before it succeeded in establishing itself.

It will not do, however, to construe this tardy establishment of contagion into an excuse for delaying measures of preparation—neither those for its exclusion, nor those for its limitation and suppression, should we fail to exclude it. Cholera is a capricious disease, and the history of its various pandemic extensions throughout the old world affords occasional instances of a single introduction sufficing to inaugurate an epidemic. Fortunately, the same conditions do not, generally, obtain with us, except in a few localities. Populations are not so dense, nor are dwellings so saturated with crowd-poison, nor is the soil so thoroughly polluted by long occupancy. Where these evils exist, they should be remedied forthwith to as great an extent as practicable, in order that, among other good results, the conditions favorable for the growth and multiplication of the cholera-poison may be destroyed or limited.

It is charged that quarantine is powerless to prevent the extension of epidemic diseases; that, in the language of John Simon, "a quarantine which is ineffective is a mere irrational derangement of commerce;" and that to be effective, it must be of such a nature as to absolutely prevent all intercourse with the infected country. All this may be true of Great Britain, owing to her geographical position, to her extensive commerce and its exigencies, to her dependence on other countries for her food supply, and to other conditions which do not obtain with us. It may also be true of Europe generally. There, a narrow strait or sea, a river, a mountain chain, or merely a territorial boundary line, with its custom-houses and passport system, defines the limits to be guarded, and forms the only physical barrier between the quarantiner and the quarantined. Here, the whole width of the Atlantic intervenes between us and the infected country. There, cordons and quarantines mean privation, misery and suffering, and, ultimately, starvation. Here, the nation is self-supporting, and could exist unaffected in almost all her material interests. There, it may be true, as alleged, that a quarantine of exclusion is impossible of execution, and that the attempt to maintain it does more harm than good, in leading to numberless contraband practices by which the disease may be introduced in unsuspected ways.

None of this is true when applied to the exclusion of Asiatic cholera from this country; while to accept the statements unquestioned would cause vigilance to be relaxed, would invite conta-

gion to our shores unimpeded, and would finally throw upon individual communities the burden and the responsibility of fighting the disease at an immense disadvantage—that is, of fighting it at home and from many quarters, instead of on the outer lines and from only one direction.

With the necessary agencies of an effective quarantine provided in due season, it would not require any very great degree of courage to promise the practical exclusion of the disease.

These necessary agencies may be thus stated in their natural order of sequence:

First.—Timely and trustworthy information of the existence of the disease in countries and at ports having commercial relations with our own, including telegraphic advices of the departure of vessels from such ports for ports in this country. Section 1752 of the Revised Statutes of the United States gives the President authority to use all diplomatic and consular officers for "the communication of information * * * conducive to the public interests;" and instructions have already been issued under this authority.

To properly utilize this information, in fact, in order to fully secure the information, there needs to be—

Second.—A national health organization, representing the natural sanitary divisions of the country; endowed with adequate authority; supplied with means commensurate with the duties imposed upon it; and with the power to call upon any other branch of the public service of the United States for legitimate assistance and coöperation. With some modifications the present National Board of Health would satisfactorily meet this indication. In my judgment, its membership should be enlarged so as to more perfectly represent the natural sanitary areas, and its members should be familiar, not alone with the sanitary features of their respective districts, but equally they should be identified with the commercial, business and industrial interests.

Under this national health organization there should be extended and perfected—

Third.—The system of refuge stations projected by the National Board of Health. With two or three exceptions, no port in the United States has adequate facilities for the proper administration of quarantine. Such a system as was inaugurated by the National Board of Health, and which is the only quarantine contemplated in these remarks, involves the removal of an infected or suspected vessel out of the track of commerce; the segregation of her sick from the well; the proper care and shelter of both these classes; the necessary disinfection of infected cargo, and the purification of the vessel; and the release of vessel, cargo, and persons, so soon as they have been rendered safe and free from the danger of communicating disease.

(*To be continued.*)

CATARRHAL OPHTHALMIA—ITS NATURE AND TREATMENT.*

BY JAMES BATES, M. D.,
Of Paris, Ohio.

There seems to be an inordinate desire among the medical fraternity, to confine their essays, debates, lectures, etc., to diseases and ailments which are of no practical interest to them as general practitioners. There are I take it, no real specialists in this society, hence as general practitioners it behooves us to look closely after our best interests, and to confine our councils to matters which comes under our "ken" more or less frequently every day. Does it pay to meet in society and spend several hours in discussing the best method of amputating at the hip-joint and of performing a cataract operation? Would it not be more to the purpose of our coming together to be satisfied with dissertations on less capital operations? We often hear M. D's. talk largely of amblyopia, glaucoma, accommodation, refraction, trichiosis, distichiosis, etc., etc., when they are unable to evert an eyelid painlessly, and (for we should be so) gracefully. In short, in the domain in which the general practitioner moves especially should he look up the minutiæ of his calling. Pick up any of our journals, and you seldom find mention of the simple diseases of the eye. Seeming to take for granted that every one knows all about them, even specialists deem it of more import to spend their time and talents over diseases which, although difficult to treat and dangerous in their nature, may have had their origin in some simple ailment wherein the general practitioner who perhaps first saw the case, was lacking in knowledge of treatment. Many an eye has been lost, from having been either clumsily or (pardon me) ignorantly handled when the ailment of the organ was of a comparatively mild nature. A case in point—purulent ophthalmia following catarrh. And although considered a small matter, many an eye has been lost, not from the direct inflammation of an undiscovered foreign body, but indirectly through the conjunctivitis, sub-conjunctivitis, purulent ophthalmia, and the like,

* Read before the Stark Co., O., Medical Society.

resulting either in opacity or ulceration with bursting and escape of the vitreous.

There have been such cases, and we have known of them. Isn't it better to teach the child his A B C's first, and put him into the Reader afterwards? Or, to put it differently, is it well to spend our time on civil engineering when we intend to shovel ballast for a living? Even this Society, at our last meeting, insisted that there were several varieties of catarrhal ophthalmia, showing their neglect and consequent ignorance of this very important disease. We know there are several varieties of ophthalmia, gonorrhœal, diphtheritic, phlyctenular, purulent, granular, and the like; but we do insist that there is but one catarrhal ophthalmia, called by the older authors simple conjunctivitis, but now very wisely placed among the catarrhal diseases as catarrhal conjunctivitis.

In opening a debate on a disease of this important organ we do so with diffidence, knowing, as we do, that several members of our Society have been identified more or less prominently with eye diseases. Nevertheless, we do not intend saying anything but that we are prepared to substantiate with sensible reasoning, and back it up with facts that at least combine research with common sense.

Inflammatory diseases are either traumatic, idiopathic, sympathetic, or contagious. Exposure to cold, sudden draughts of air, wet, the heat of the blacksmith's forge, the puddler's furnace, the cooking-stove, badly-ventilated rooms—either sleeping or living— close application to study, burning the "midnight oil," are as much traumatic causes as the foreign body imbedded in the folds of the conjunctiva. There are idiopathic causes of catarrh, although not so mentioned by authors, requiring not only local but constitutional treatment. We remember a case where the inflammation was very obstinate that subsided rapidly after a course of alteratives.

Again, weakly anæmic persons will have much happier recoveries with the chalybeates than without. Catarrh of the nasal fossæ, particularly of the lachrymal apparatus, has been known to give rise to very obstinate ophthalmic catarrh (although rarely) from sympathy, and frequently a sound eye will become affected from sheer sympathy of the other diseased one. There, however, can be no doubt but the disease can be propagated by contagion. And perhaps, after all, this is the most prolific manner in which it is contracted. Families using the same basin or towel, sleeping in the same bed; the surgeon examining a sound eye after treating a diseased one; constantly using sponges and camel-hair pencils without intervals of soaking in water or other antiseptic fluid. And here we believe, with a late author, "there can be no better antiseptic for general use than pure water."

With the weight of testimony our authors have brought to bear on the subject, no one can thinkingly doubt but that catarrhal ophthalmia is very contagious. And we might add, there seems to be so much extra sensitiveness about the texture of the membranes of the eye and surroundings, that all inflammatory diseases of the organ are contagious.

Catarrhal ophthalmia is essentially a conjunctival disease. If the deeper structures are involved, it must have progressed to sub-conjunctivitis, or further into purulent ophthalmia. There is not much difficulty in differentiating the diagnosis between conjunctivitis and sub-conjunctivitis. In the former we have large superficial vessels, large-meshed, over the ocular conjunctiva, which can be freely moved over the sclerotic; while in the latter, or sub-conjunctivitis, the vessels all radiate from the cornea, and cannot be moved over the surface of the sclerotic.

The invasion commences with congestion of the inner margin of the lids, usually called the tarsal or palpebral conjunctiva. In very mild cases it may go no further.

From here the disease usually spreads to the retro-tarsal fold, caruncle, semi-lunar fold into the ocular conjunctiva, even to the edge of the cornea, and in very severe cases the cornea is found to be opaque. As the disease abates the same course is gone over until at last we find the only remnants of the disease on the tarsal conjunctiva. There is of necessity a good deal of mucous or muco-purulent discharge, partly from the lachrymal apparatus, partly from the altered secretion of the meibomian glands, and lastly from the irritated conjunctiva itself. This discharge often produces marginal or ciliary blepharitis.

Catarrhal ophthalmia has been confounded with granular ophthalmia, owing to the swelling and enlargement of the papilla of the conjunctiva, giving it the semblance of granulations. Indeed, so similar are the two in this respect that the history of the disease must frequently be taken into account before a differential diagnosis can be made. Much difficulty is often experienced from gluing of the lids together with the secretions, especially in the mornings, giving the patient much trouble in opening the eyes. Fear of light or photophobia is not so great as in other eye

troubles. Although patients will often complain very much of artificial light; the sunlight, if somewhat subdued, will not give pain. This is explained by the sunlight being more diffused, while artificial light usually comes from one direction. In many subjects, especially if feeble, tumefaction often causes drooping of the upper lids, more from relaxed muscular tension, doubtless, than otherwise, for in such cases you find a corresponding condition of the lower lids. The patient usually complains that his eyes are filled with particles of sand or grit, from rubbing of the enlarged papillæ against the ball.

To sum up the diagnosis of catarrhal ophthalmia, we find conjunctivitis, both palpebral and ocular, more or less pronounced, but superficial, some photophobia, lachrymation, muco-purulent discharge, marginal blepharitis, œdema occasionally, as might also be said of ciliary neuralgia, a feeling of grit and sand in the eyes, particularly in the evening, in severe cases, impaired vision from corneal opacity, and an inordinate tendency to invade both eyes.

The patient notices muscæ volantes in the shape of strings of fine beads floating through the field of vision and caused by mucus and flakes of epithelium being washed over the surface of the cornea by the movement of lids.

Prognosis is favorable, very amenable to treatment, if treatment is early and judiciously applied. But a bungler is as likely to make bad work in eye diseases as if he were to try to make a wagon without knowing how. Mild cases under favorable circumstances run a course in a few days, while severe, if neglected, they often run into months and years.

Patients too often neglect seeking professional advice until the disease has become chronic, in the meantime trying everything they hear, whether injurious or not.

The treatment of catarrh might be divided into three kinds—prophylactic, abortive, and curative. Although apparently a small matter in itself, the duty of the surgeon is plain and imperative—when he has the opportunity of preventing the spread of eye diseases to do so. Families would often be saved the scourge, or at least have it isolated to a single member, if the attending surgeon would warn them of the danger of contact. Towels should be put in quarantine, the sponge, basin, even camel's-hair pencils, should be thoroughly cleansed before being used again. And, further, the pencil used for one eye should never be used for the other in case both are affected.

Abortive treatment, although possible, is not often practiced, from the fact that the disease has progressed too far before the surgeon sees the patient; but when possible, it is the most satisfactory. A thorough treatment of conjunctivitis in the earliest stage will almost invariably result in a cure.

Eye washes, as a rule, should be abandoned. Many surgeons can recall numbers of cases of failure from eye washes so-called. Dr. X. C. Scott, of Cleveland, Ohio, in all his treatment of eye diseases, has rigidly adhered to the above, and claims further, that the patient or his friends not understanding their use or what they are to accomplish, in nine cases out of ten do more harm than good. Many eyes have been permanently injured by the too free use of mineral astringents leaving a deposit which could not fail to act as a foreign body. Especially is this true of acetate of lead. Nitrate of silver, when carelessly used for a long time, will discolor the sclerotic. Copper, lead, zinc, silver, in fact any treatment which leaves the patient with inflamed conjunctiva, is wholly wrong, and should be abandoned, from the fact that while on the one hand we are guarding against dust, smoke, and the like, on the other we place deposits there which are fully as bad. Then, if not allowed to treat in the popular manner, how shall we treat?

The patient's eyes should be treated by a professional man. The conjunctiva should be actually brushed with a camel-hair pencil dipped into the medicated solution, and immediately after dipped into pure water, and all of the medicated solution washed from the conjunctiva; in this manner, and this only, can deposits be prevented. To accomplish this the upper lid must be everted, and everted very thoroughly—so much so indeed as to throw into view the retro-tarsal fold. By placing the forefinger of the left hand on the everted margin of the upper lid, and the thumb on the corresponding margin of the lower lid, nearly the whole of the palpebral conjunctiva is thrown into view. Then, with a *genuine* camel-hair pencil dipped into the medicated solution, the exposed conjunctiva can be carefully and thoroughly brushed, afterwards in the same manner using a plentiful supply of water to wash away any remains of the solution to, as before stated, prevent deposit—also directing the patient to bathe the closed lids with water until smarting ceases. When the lids are everted, so soon as the brush touches the inflamed surface, the patient will endeavor to close the lids, thereby bringing into view much more of the conjunctiva, and facilitating the treatment. Where the disease is

very mild, a light treatment every two or three days with zinci sulp. or acid tannic, gr. v. to aqua ℥j, will suffice; but what we prefer is arg. nit., gr. v. to aqua ℥j., repeated according to indications. Where the ocular conjunctiva is involved, much more active treatment is required; x. and even xv. gr. solutions should be used for a time or two, and where the cornea is somewhat opaque, and there is sub-conjunctivitis with much photophobia and lachrymation, insufflations of hyd. chlor. M. for 24 to 48 hours, followed by ung. hyd. oxidum flava, introduced at bed time, this (as the opacity disappears) in turn followed by the usual treatment for the simple disease. We are satisfied we have saved very bad eyes in this manner, after the cornea had become opaque. Where much lachrymation exists, occasional use of tannin gr. v. or x. to aqua ℥j., alternating with regular treatment as indicated, will generally suffice to relieve.

After treatment with the silver has continued for some time, the eyes will become accustomed to its use, then it would be well to change over for a time to cupri sulph. of the same strength, or even actually touching the conjunctiva with crystals of sulphate of copper. Powders dusted underneath the lids should be used with great care, and only for a short time as all foreign substances must do a certain amount of injury. The patient should be excluded from smoky or close rooms, should not smoke, or at least only in the open air, should not be much in the night air, should see that in other respects his system is healthy, in fact everything should be taken into account which will further and not retard a cure. All poultices, hot or cold, should be excluded. A cloth may be wrung out of ice water and laid on the eyes occasionally. Anything which overheats the eyes is bad, especially goggles, double eye-glasses, etc., and excepting single eye-glasses, with perhaps a slight tinge of blue, violet or green, the eyes should not be excluded from pure air and light.

THE NEW LOCAL ANÆSTHETIC, MURIATE OF COCAINE, IN OPERATIONS WITHIN THE NASAL AND LARYNGEAL CAVITIES.

BY CARL SEILER, M. D.,

Instructor of Laryngology and Lecturer on Diseases of the Throat and Nose at the University of Pennsylvania.

I have long felt the want of a local anæsthetic in operations about the nose and throat, which would do away with the necessity of the administration of ether or nitrous oxide gas in those cases in which the operation, though painful, requires but a very short time for its performance. It was, therefore, with great interest that I read the accounts of the action of muriate of cocaine on the eye, and after having obtained a small quantity of the drug at once proceeded to experiment with it on the mucous membrane of the nose, larynx, and naso-pharynx. The quantity of the drug at my command being very limited, only a few cases could be experimented with, but the results were so eminently gratifying as to far exceed my fondest expectations. I give a short account of the results so that the reader may draw his own conclusions:

Case 1 was a lady of light complexion and very nervous temperament, from whom I wished to remove a large posterior hypertrophy, situated on the posterior portion of the lower turbinated bone on the left side. The mucous membrane of the anterior nasal cavities was, however, so exquisitely sensitive that the introduction of the wire snare along the floor of the nose was impossible on account of the pain caused by it. I then instilled a few drops of a four per cent. solution of the muriate of cocaine into the nostril, the head of the patient being well thrown back, and allowed five minutes to elapse, when, without the slightest pain being experienced, I could introduce the snare and grasp the growth in its wire loop. The gradual constriction of the hypertrophy was at first hardly felt by the patient, but sensibility returned in the course of fifteen minutes, and the usual small amount of pain was felt during the latter stages of the operation.

Case 2. Chas. M., a boy 8 years of age, with very large anterior hypertrophies on both sides blocking up the nostrils was to be operated upon, and I decided to remove the exuberant tissue with the wire snare. Before proceeding with the operation I painted the mucous membrane with the cocaine solution by means of a camel's hair brush at intervals of about a minute until all sensibility was destroyed, which occurred after the 5th application. The curved needle was then quickly passed through the base of the growth and the wire slipped around, when the hypertrophic tissue was snared off without the slightest pain being felt by the little patient. After the one side was operated on I again painted the other nostril with the solution of cocaine and removed the hypertrophy in the same manner, also without pain. Without the aid of an anæsthetic under ordinary circumstances this operation is quite painful and its performance in children is

out of the question unless under the influence of ether. In adults I have often seen patients faint when the needle was introduced into the hypertrophic tissue.

Case 3. John S., aged 17, machinist, had made an engagement to have a small exostosis on the lower portion of the cartilaginous septum removed with the burr of the dental engine and had made arrangements to take ether. When he presented himself for the operation I concluded to try the experiment of producing local anæsthesia by means of the muriate of cocaine and to give the ether only if it should fail. A pledget of absorbent cotton was saturated with the 4 per cent. solution, and placed over the bony growth and allowed to remain in place for six minutes; a fresh pledget saturated with the solution was then placed in position and left for five minutes after which time it was removed and the parts tested with the sharp point of a needle. No pain or even sensibility being evinced by this test, I proceeded to remove the bony growth, which was of the size of a split pea and materially interfered with the respiration on that side of the nose, by means of the rapidly revolving burr, and found that I could do so without hindrance on the part of the patient, who when asked whether he felt any pain, said, "No, but the noise in the head is awful," meaning the transmission of the sound of the burr through the bones of the face to the ear.

The operation of removing bony excrescences from the nasal septum is a very painful one, and I have heretofore always given the patients an anæsthetic, without which, even if the patient is willing to stand the pain, the operator is very materially hampered in his manipulations by the involuntary motions of the patient, while if the latter is under the influence of ether, the operator loses his coöperation, and has to work in a more or less constrained position. Thus it will be seen that if we can employ a local anæsthetic like the muriate of cocaine in operations of this kind, not only will the patient be benefited, but also the work of the operator be materally lightened.

Case 4. Mrs. H., æt. 37, was one of those rare cases of irritable fauces in which it is impossible to introduce the laryngeal mirror or even the tongue depressor without producing gagging and even vomiting. The case being one of aphonia, I was very desirous of obtaining a view of the larynx; but after repeated trials, during which she vomited twice, I gave up the attempt, and told her that she would have to be educated to bear the mirror. The following day she came again, and although her throat was not quite as irritable, yet I could not obtain the desired view at the first few trials. I then decided to try the effect of the cocaine. Unfortunately, my stock of the solution was nearly exhausted, and knowing that I could not obtain any more of it in Philadelphia, I did not use it in the form of a spray, which method of application undoubtedly would have given better results, but carefully painted the fauces and pharynx with a camel's hair brush dipped into the solution. After the lapse of a few minutes, I introduced the laryngeal mirror and obtained a satisfactory view of the larynx and vocal cords, without the slightest reflex movement being visible.

As long as my solution lasted, I employed it in various other cases in which minor operations were required, and found the drug to act invariably as a local anæsthetic. I observed, however, that some persons are more susceptible to its influence, that is, in some a shorter time and fewer applications are required to produce insensibility of the part than in others, and those in my limited experience I found to be of light complexion, whose mucous membranes are as a rule more sensitive to irritation and pain.

1346 *Spruce street.*

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. Seelye, A. M., M. D.

Collapse from Freezing.

The patient is an elderly man, but nothing definite is known about him. Early this morning he was brought to the hospital in an ambulance in a pulseless and comatose condition. The only thing known about him is that he was found this morning lying on the cellar floor, near a door which opened into a hallway, in a house down town. Last night was an extremely cold one. His friends said that he was not a heavy drinker, but they think that he has had some kidney disease. On his admission at 5:45 this a. m. his pulse was 42, respiration 13, and temperature in the rectum 87°. The examination of his general condition showed that he was comatose, and that there was some œdema of both legs, and the surface of the whole body, but especially of the feet, was cold, and the elbow-joints were rigid. There was no odor of alcohol in his breath. His respirations were deep and slow. There was no radial pulse, and but a feeble femoral pulse. His pupils were narrow and equal in size, and did not dilate upon slapping him on the cheek. His eyes were wide open, and had a glassy stare. There were no evidences of there having been

any vomiting or involuntary evacuations. With the catheter there was drawn off a drachm and a half of dark amber-colored, turbid urine, containing albumen and casts. He was sponged over with mustard-water, and $\frac{1}{24}$ grain of digitalin was injected hypodermically, and also brandy and ether. He was then put in the hot-air bath, and hot-water bottles were applied to his feet. At 9 a. m. the respirations had improved slightly, and at this time there was a feeble radial pulse, and he could be aroused slightly. At 11 a. m. the rectal temperature was 87° and 85° in the urethra. At 1 p. m. he could be aroused sufficiently to answer to his name. More brandy and ether were administered hypodermically, and $\frac{1}{24}$ grain of digitalin was again injected. At 2 p. m. the temperature in the rectum was 93°. The same thermometer was used in taking all the temperatures. Patient has been kept constantly in the hot-air bath up to the present time.

Gentlemen, this case illustrates to you very well the effects of simple exposure to extreme cold. This man came as near freezing to death as he possibly could without perishing. From statements made by his friends, there were some suspicions at first of Bright's disease. But all the phenomena which you have heard described are those of collapse from cold. This case is of importance, as it shows you how from cold, as well as from other injuries, the vital signs may all become very much lowered. The pulse here was reduced in frequency, and the heart's action became very feeble, so that the temperature in the bowels was found to be lowered to 87°, and in the urethra to 85°, and the respirations were reduced in frequency. This condition of collapse is one which you may see result from a variety of causes. But it is moref requently seen in hospitals as a consequence of a sudden and great loss of blood, and as occurring after a severe injury, or in diseases which are accompanied by profuse hemorrhages. But in such cases you never see the temperature so much reduced as it was in this man from exposure to extreme cold during the last twenty-four hours. It is a useful case also because it shows you the proper means for restoring patients in this condition. He was immediately put in the hot-air bath, and he is now in it still. This was done in order to restore vital action; and in addition he was treated with stimulants and digitalin to stimulate the heart's action. He has had no food, and it is not probable that he could yet digest any of it were it given to him. The main reliance must be upon external warmth, alcohol, and digitalis. He has already been far enough restored to answer to his name, and to show some reflexes, and so it is quite possible that he will recover completely.

Medical Societies.

PROCEEDINGS OF THE KENTUCKY STATE SANITARY COUNCIL,

HELD AT ELIZABETHTOWN, KENTUCKY, OCT. 1–2.

Reported by Allen Kelch, M. D.

The Kentucky State Sanitary Council opened its third semi-annual session in Elizabethtown on the morning of Wednesday, October 1st.

A HEALTHY HOME.

Dr. Dudley S. Reynolds, after a few introductory remarks, said:

"The subject of a healthy home involves too much that is important to all mankind to permit anything like a just consideration in the brief time allotted to a single address. In providing a home, the simple necessities, the comforts, nor the luxuries of life form a suitable basis for the sanitarian. The questions of light and air are quite as important as those which involve protection from the storms and vicissitudes of climate. Unfortunately it is not sufficiently known to the public generally that warm air is thin air, light air, air which rises, and cold air is heavy, compact air which descends; and the contact of the cold air let in from above upon one side of the house with the volume of tainted warm air in the chamber will, if the warm air be permitted to pass out near the top of the opposite side of the room, constantly replace those highly important elements which man must have for comfortable breathing to sustain health. The question of atmospheric poisons is one of great importance, and may be generally considered as pertaining to the soil or lying upon the surface of the ground. The question of keeping out those germs which cause infectious disease involves the consideration of the source and character of the water supply, and this is often directly connected with the question of drainage, and the disposition of excrement and garbage. The diseases mostly to be feared are to be known as malarious and filth diseases, the former entering the system through a tainted atmosphere, the latter being swallowed in the contaminated water or food.

Many other references to the relations which a neglect of these points sustains to the causation of disease were introduced, after which the questions involved were discussed as follows:

Dr. McCormack, of Bowling Green, said an excellent authority had written that the style and architecture of the school-houses and churches of the people marked their advancement in civilization. He thought it might better be said that the home life of a people was the true test of their advancement. This is a broad question. Lately the State Board of Health had been engaged in making a sanitary survey of Kentucky, inquiring on a large scale into the home life and habits of the people. The result is not flattering to our vanity; carelessness in regard to the location, construction, and ventilation of our houses, and in regard to the disposal of house refuse and kitchen slops are reported from all sides, and the results of these neglects—typhoid and other fevers, diphtheria, and other filth diseases—are widely prevalent. He pointed out the absence of all systematic attempts at ventilation of dwelling houses and of the relation of impure air to scrofula and consumption, as another evidence of home neglect. This survey showed that only about one-third of the people of this State had been vaccinated. Thousands of dollars were paid from the county treasuries in Kentucky to treat and stamp out small-pox, which properly applied in vaccination would entirely prevent this dis-

ease. Cleanliness and carefulness in every home would make Kentucky what it should be—the healthiest and greatest of the States.

Dr. Breyfogle, of Louisville, thought the address of Dr. Reynolds was timely and most excellent, but that it did not go far enough into the subject of a healthy home. That the suggestions contained in the address applied more especially to people of the higher classes, those able to own and construct their own homes. That more attention should be paid to those poorer classes who are under the influence of landlords who care less for the physical than the financial condition of the tenants. We should teach them that these are not the only requirements for a healthy home; teach them that they swallow disease as often in stale vegetables, impure milk, and diseased meats, as from the emanations from garbage and cesspools. Teach them to look into their culinary department oftener, and then if the poor laborer, who goes to his work early, leaving his wife with the cares of a large family, should be unable to fully conform to the modern sanitary regulations in the removal of offal from his premises, they can at least remove some of the predisposing causes of an unhealthy home. Again, some reference should be made, in treating of a healthy home, to the moral influences, which contribute so often to debility, nervous prostration, and insomnia. In this we often find the secret germ which undermines the constitution and prepares the field for reception of the infinitesimal germs so learnedly discussed by my predecessors.

THURSDAY MORNING.

The session opened with a large attendance of ladies and gentlemen, residents of the city. The first paper read was on the "Physical and Other Dangers of Alcoholic Beverages," by Hugh D. Rodman, M. D., of New Haven, Ky.

After entering minutely into the subject of alcohol itself, and having something to say concerning the probable date of its discovery, he proceeded to speak of the evil effects of this poison upon the system.

"Possibly," said he, "when alcohol is imbibed a part of it may be oxidized in the organism, but it is a well-established fact that the major portion of it retains its distinctive nature and qualities unchanged after its mixture with the blood, and is expelled from it unchanged and unaltered through different emunctories.

"Perrin asserts that he never found alcohol in the human body thirty-two hours after its absorption. Parker and others maintain that they found it there 124 hours after. Its presence in the system, retaining, as it does, its own nature and properties and power to cause mischief, even though it last but thirty-two hours, cannot but prove detrimental and dangerous. The blood, passing to every portion of the body, even the most remote, in accomplishing its purposes of nutrition, when carrying another substance having a distinct nature and separate existence and different effect, is bound to be interfered with in the performance of the function it is designed to fulfil. This applies to every part, but there are special parts of the system upon which alcohol exerts a specific effect. The nervous system is particularly susceptible, and for it this substance seems to have a special affinity. It affects the organs concerned in digestion also, but not in the same manner. The stomach is its receptacle when it is taken into the body and thus is exposed to its influence. So, likewise, the organs concerned in excretion, though possessing no affinity for the substances, must, by virtue of their function, have it brought into contact with them. The immediate effect of its absorption is elevation of temperature. This, however, is temporary, and soon gives way to depression. This being true, the consequent effect of it upon the system is to increase the susceptibility of the individual to the development of those serious internal inflammations recognized as having their exciting causes in lowered temperature and depressed vitality. A continued use of the substance leads to destruction of various organs, sometimes by softening of its structure and dissolution of it into small particles or detritus, and sometimes by the progressive degeneration of its substance, or deposition into its substance of fat. By its action, the tendons supporting various organs receive a superabundance of nourishment; and thus their function is subverted, and they displace by their increased bulk the parts they are intended to support.

"When alcohol is used as a beverage the stomach is the first organ to feel its baleful influence. One-half of the cases of gastritis and enteritis have their origin in the excessive use of alcohol.

"Its effect upon the liver is even more disastrous. Besides congestion, jaundice and ordinary inflammation, two other far more grave and hopelessly irremediable affections have their origin in its too free use, viz., steatosis and cirrhosis. Affection of each individual part of the respiratory apparatus may likewise be enumerated among the diseases which its use entails.

"Of all however, the brain suffers most severely and constantly from its absorption. Step by step its functions are impeded until one by one they are lost. The climax is insanity—silence of the intellect in a ruined organism. That form of acute insanity known as 'delirium tremens' is followed by death once in five times. 'Out of 1000 insane patients who have been subjected to my special observation,' says Dr. Morel, '200 were deranged through the action of alcoholic liquor. In St. Petersburg out of 997 demented persons admitted to the asylum in ten years, 837 were hopelessly mad through the direct action of brandy.'"

Following Dr. Rodman, Dr. P. C. Sutphin, of Canmer, Ky., read a paper on Alcoholic Beverages in Relation to Health Regulations.

Dr. Sutphin said, in substance;

"Deeply affecting the interests of sanitation we have the use of alcoholic beverages. The extent to which they affect those interests stands fully demonstrated in the deleterious effects of these liquors upon individual human health. It is known that 60,000 die every year in the United States alone from the injurious effects of this agent. To reflect that so many people lose their lives every year from this pernicious and hateful influence must awaken in every virtuous mind the deepest desire for their suppression or permanent removal. Their deleterious effects are more vividly apparent to the medical man who recog-

nizes in every vitiating influence upon the system one of the most potent predisposing causes of disease. As one of its effects he will recognize the peculiar susceptibility of those addicted to the use of these beverages to epidemic diseases and the horrible mortality that prevails among them.

"During the epidemic of yellow fever which prevailed at Memphis a few years ago, marked emphasis was placed on the fact that those who were habituated to the use of these liquors were the earliest as well as the most constant victims of the disease. This being true of yellow fever the same may be said with even greater force in regard to cholera.

"In Glasgow, Scotland, in 1832, during the cholera epidemic at that place, says a physician, only 19° of the temperate perished, while 91° of the intemperate fell victims to the disease. In the same year it reached Montreal, and of 1,000 persons who died there of the disease only 2 were teetotalers. At Albany we are informed that it carried off 366 above 16 years of age, all but four of whom belonged to the drinking classes. In New York of 204 cases only 6 were temperate and all of these recovered while 122 of the others died.

"It has been ascertained by the investigations that the general death rate of all the population of England is 23 per 1,000 per annum, while that of drunkards, males and females, is 118. While a study of the effects of moderate drinking shows it at best to be of a highly deleterious nature. Moderate drinking tends to produce that condition which we term 'plethora,' so favorable to local congestions and inflammations of various organs and which especially tends to hemorrhage. This superficial aliment must be excreted by the lungs, liver, kidneys and skin: this leads to undue functional activity of these organs which renders them peculiarly susceptible of derangement.

"The Health Board is the more especial guardian of the public health, and the effect of the use of these liquors by the people becomes a question most intimately concerning sanitary regulations. That this question is deserving of the most careful attention of the health board cannot certainly be denied. But whilst supposing that it has not failed to meet with consideration thus, the question is as to whether this consideration has been such at all times as properly belongs to it. How many have been the special reports on this subject, and what action has been taken from time to time concerning it?

"What words of warning against the use of alcoholic beverages have been uttered by health boards officially? What demands for their suppression?

"We speak of filth as being the 'nidus' for the propagation of disease: what may we not say of the dram-shop in this connection, and if a health board orders the removal of the filth for sanitary ends, why not insist also upon the removal of the saloon for the same purpose.

"It may be said, however, that the health board has no power to remove the dram-shop. This may be true, so far as the present is concerned, but that this power may be made a matter of the future if so desired, perhaps admits of but little doubt."

Dr. McCormack, of Bowling Green, said:

"I am sure this council needs but little more than the reading of such papers as those, we have listened to, in order to convince its members that from a health standpoint the use of alcoholic beverages has played and is playing the part of important factor in the production of disease and death. Every practitioner of medicine of any experience, knows that the mortality returns show but a small percentage of the actual deaths which occur from alcoholic poisoning. In the first place a physician's regard for the feelings of the friends of a dead man will often prevent him from telling the whole truth in a death certificate, and in the second, alcohol is often the remote cause, while the immediate is some acute disease. For instance, pneumonia and typhoid fever, or any other of the ordinary forms of disease which might in the same subject be of comparatively little importance, assume aspects of much graver import when it is determined that the subject is dissipated and intemperate in habits.

"Yet while all this is admitted by the Board of Health, and deplored by its members too, it finds itself at present powerless to act to modify that condition of things. The gentleman speaks of appealing to the Legislature to gain these powers, and assumes they would at once be granted. A little experience in appealing to that body would teach how idle such efforts prove. We need to lay a broader foundation than that: we need to go further back and make this an educational question. What we need to do is not so much to restrict by law those diseases which are preventable, as to educate our people to that degree of intelligence in respect to these operating causes of disease as will lead them to instinctively avoid them as they will any other of the certain causes of destruction. To this end the best and readiest plan is to have the full facts taught in our public schools, as is done in Michigan and several other of the Northern States. While our boys and girls are learning about the mountains of Asia and the political divisions of Europe, have them taught these other important facts which will be of life-long value to them, viz., that alcohol is a poison and why. Not only this, but I should have children taught how they can avoid typhoid fever, cholera, and scarlet fever; teach them how and why tobacco is injurious. Such a popular knowledge of these subjects as this would give would create such a public sentiment as would require no appealing to legislators. No appeal would be required. The public voice would simply demand it, and that voice the legislator dare not disobey.

Dr. C. Z. Aud, of Cecilian, Ky., read the following paper on the subject of "Sanitation of Railroad Depots."

"No doubt many of you reside in railroad towns and are familiar with the plans upon which the greater number of railroads are built, and with what total disregard of all sanitary laws. So far as my experience goes, they are built over the ditches on one side of the railroad track, along which ditch the surface water drains. The water from the roof is collected by gutters and carried by downpipes underneath the building. The roof being metal, requires but an occasional slight shower to keep the ground underneath the building constantly moist; in fact, the heavy dews of summer will cause many times quite a

drip. The depot floors are generally built three or four feet from the ground, and are so open as to allow corn, wheat, and other grain that is being spilt by shippers to pass through and sometimes accumulate in considerable quantities. The corners of the freight-room are used more or less as a urinal and the large space underneath as a deposit for alvine discharges. Some depots have privies built inside and others in close proximity. Generally, there is quite a large surface covered as a passenger platform under which the drainage must pass in its exit from the depot. Now, this grain, alvine evacuations, etc., being kept constantly wet by the urine, drips from downpipes and surface drainings along the ditch, must so decompose as to give off most offensive and noxious gases, which, in ordinary times, would cause malarial and other troubles, and in times of epidemics would be a most fruitful soil for the reception, propagation, and spread of infectious diseases. The depot and platform at Cecilian, where I reside, cover eight hundred or a thousand square feet of surface, and being situated in a depression is so badly drained that in rainy times the water in places varies from an inch to six inches deep. I have had quite an amount of malarial troubles among the agents whose duty it was to remain a number of hours each day or night in that depot. I have seen some depots so badly situated and so filthy underneath, that I shuddered to think of the danger to which unsuspecting agents and travelers were being exposed.

"It is useless to say more to convince you of the necessity of sanitation in this direction. The matter of most importance is, the remedy for the remedy for the evil. To my mind, the remedy of most avail is to bring the evil clearly before the attention of the railroad officials, whom I have generally found intelligent and zealous in their efforts for the welfare of the employees of the road.

"Now let us discuss the most favorable plans of sanitation, and urge the railroad officials to aid us in carrying them out. The ground under and about depots should be so drained that no water could remain near to become stagnant. The water, instead of being carried under them, should be carried away from them. They should be well ventilated. The floors should be so tight, that no grain or filth could get through them, and all such should be swept outside, where hogs, fowls, etc., could pick up the grain, and the other filth as it accumulates should be carried off by the section hands. No privies should be built so near a depot as to be dangerous, unless agents are instructed as to the proper care of such, and required by the company to keep them in good sanitary condition.

"In winter many agents and travelers contract violent lung and kindred troubles by the irregular heating of passenger waiting-rooms."

Following the discussion of this paper, Dr. J. N. McCormack, of Bowling Green, read a very interesting paper on "The Location and Construction of School Houses." In substance he said:

"Real sanitary reform in any country can only be hoped for through a proper education of the masses of the people on the important subjects necessarily embraced in the practical observance of the laws of health. This education can only be secured through the intelligent, earnest, persistent coöperation of the school and health authorities; and the necessity for this coöperation and for persistence in it is probably nowhere more apparent than in Kentucky. To any one at all familiar with the state of public sentiment in regard to educational as well as health matters, it will not be a matter of surprise that the construction of school buildings, as bearing on the health of their occupants, has received but little attention. We have watched with great and growing interest during the year which is just closing, the earnest effort of the little band of public-spirited men to graft upon an old school system methods more in accordance with the demands of the age and the resources of our State; and in the new and better system which seems destined to result from this grafting, we wish to have a sanitary branch.

"If the object of the school is to so train the mind and store it with useful facts, that a strong foundation may be laid for future usefulness as a citizen, however neglectful we may have been of training in regard to sanitary matters in the past, we have certainly reached that degree of advancement when that education will be considered very incomplete in which special stress has not been laid upon all essential conditions in securing and preserving health. Inspired by this thought, Charles Kingsley prophesied, that 'the art of keeping one's self alive and well, will in some more civilized age and country, be held a necessary element in the school course of every child, just as necessary as reading, writing, and arithmetic.'

"If these things be true, and their truth can scarcely be doubted, probably the first step to be taken in the advance movement is the building of school-houses which will be sanitary models in each district in the State. The 'unconscious tuition,' 'the absorbing of knowledge,' forms a larger part of our real education, and children coming, as very many of our children do come, from more or less filthy, badly-constructed, poorly-ventilated homes, and passing the formative, impressionable period of their existence in these well-constructed, well-kept school-houses, would absorb sufficient knowledge of, and love for, a better method of living, to mould the character of the individual and modify the home life for generations to come. Of course, in addition, we would have hygiene taught as a regular part of the course, but with a properly located, constructed, and well-kept school-house, where the methods of heating and ventilation and the disposal of excreta were based on plain and easily understood principles, and the surroundings as a whole were just such as should characterize every healthful home, how easy a task it would be for the teacher to instruct the pupils as to the importance of proper warmth, pure air and cleanliness, and the best methods of securing these essentials to health. These are some of the indirect future advantages to be gained by properly constructing our school-houses. The immediate advantages, the direct influence their construction has upon the health of the children during their school life is probably no less important, and it more immediately concerns us at this time. Recognizing that a healthy childhood naturally ripens into a vigorous manhood, and that a sickly child-

hood just as naturally leads to premature old age or early death, our State has wisely reserved to itself almost absolute control of its schools and school buildings. In fact, the public school is almost the only place where the law may directly interfere to secure and enforce the conditions of health. In this free country of ours, every man is lord of his own castle, and may make it as unhealthy as he will; but if he accepts the benefits of our schools, we can force health upon him as one of the greatest of these benefits. As we have unlimited control here, and only here, how culpable will the school and health authorities be if they do not combine and wisely exercise their important authority.

"So far as my own observation has extended, defects in school-house construction, from a health standpoint, are quite as frequent and flagrant in the more pretentious buildings of our cities and towns as in the humbler structures to be found in the country districts, but understanding your request to be more especially in regard to the latter, I shall devote myself now to the requisites to healthfulness in a country school house. Of these, the first to be considered are the site and grounds for a school house.

"This subject has not attracted the attention which its importance demands. Too often the accident of donation or the influence of some prominent citizen has been paramount in determining a point which should depend entirely on the health, comfort, and convenience of the children of the district. Nothing can give stronger proof of the advanced civilization of a community than the habitual choice of beautiful and healthy sites for its schools. The location should be central as regards the district, and dampness of the soil is, above all other evils, to be especially avoided, it being recognized as one of the most prolific causes of consumption and scrofula. An elevated site is preferable to a low one, as a rule, on account of better drainage, more abundant sunlight, and a freer supply of air. The grounds should be ample, and should be laid out in the most picturesque style of landscape gardening that the community can afford, and all should be enclosed by a neat fence. Land is so abundant, and adornments of the kind mentioned are so cheap and easy to obtain, that no excuse should be accepted when a school house is chucked into some out-of-the-way corner, or propped on a bare hillside, too barren to support anything but a very poor school. No member of a board of trustees would think of building a house for himself in such a locality, and should be ashamed to put the defenseless innocents of his neighborhood, whose interests the State has appointed him to guard, in such a place.

"ARCHITECTURE OF THE SCHOOL HOUSE.

"The size of the house will, of course, depend upon the number of children it is intended to contain. A school-room, twenty-five feet by thirty-two feet, and twelve and a half feet high, containing 10,000 cubic feet of air, supposing fifty scholars in attendance, will give each a floor space of sixteen cubic feet and an air space of 200 cubic feet.

"These figures may seem high, but unless the heating and ventilation are of the most perfect kind, they should be increased rather than diminished. If properly constructed, brick houses are preferable to any other kind, but as they are ordinarily built with us, the brick work, commencing near the level of the ground, with no damp-proof course to prevent the rising of moisture, the walls soon become so soddened and damp that they are utterly ojectionable from a health standpoint. This fault can be readily obviated, at a very small expense, by the use of a properly-adjusted damp-proof course. A very healthful, comfortable, and economical school house can be made of frame, with a thickness of brick worked in, giving a wall with five layers, plank, air, brick, air, and lath and plaster. Such walls have the great advantage attaching to wood, dryness, as well as the most important belonging to brick—warmth. Of whatever material the house is constructed, the floor should be well raised from the ground, and the space under it should be kept thoroughly dry and well ventilated.

"Formerly the proper lighting of school rooms, and the arrangement of the windows and desks in their relation to each other, received but little attention, even in the most enlightened communities. In the last few years, able oculists have shown that the most disastrous results to the eyes of school children are met with every day, as the effect of this ignorance and neglect. Insufficient or ill-arranged light, or seats and desks of improper shape or size, or placed in wrong positions as regards the windows, obliges the child to lessen the distance between the eyes and books, thus straining the accommodation muscles, and finally impairing the sight. To prevent these evils, the light must be sufficiently strong, and should fall on the desk from over the left shoulder, and, as far as possible, from above. If the room is of an oblong shape, as, for many reasons it should be, proper light is most easily obtained by putting the windows in one of the long sides, and arranging the seats and desks parallel to the short walls, so that the light will come from the left hand side.

"The size and form of the seats and desks should also receive the most careful attention. In my early days it was thought that the bad postures so often assumed by children in the school room, arose partly from negligence on the part of teacher, and largely from idleness and carelessness on the part of the pupil; but we now know that there are well established anatomical and physiological reasons which make it impossible for a child to long maintain a correct posture in a seat and desk unsuited to its size and form. In this department the requisites are simple and easy to obtain. The seats and desks should vary in size and height, so that each child may have a seat to itself with a comfortable back, high enough that its feet may rest easily on the floor, and with a well lighted and well inclined desk near enough to its seat, that it will not have to lean forward, or sit on the edge of the seat, in reading and writing. Attention to these simple suggestions would prevent many cases of curvature of the spine, deformed chests, short-sightedness, and other similar evils in the rising generation.

HEATING AND VENTILATION.

"Of all the important questions to be consid-

ered in the construction of houses intended for occupation by human beings, heating and ventilation come first, because of their paramount influence on health. Heating is relatively of greater importance in schools, because children, as do all young animals when not taking active exercise, require more warmth than adults, and ventilation is, because of the large number collected together in the same room, producing a condition of the atmosphere which slowly, but no less surely, impairs the health, unless the air of the room is, by some means, constantly changed. In the rude country school houses of 'the good old days' of my boyhood, and which, I am sorry to say, still survive in great numbers to disgrace the commonwealth, the necessity of more thorough ventilation was not much felt, because the open cracks between the logs where the 'chinkin'' was out, the holes in the rough floor, and the crannies around the windows and doors, furnished all the fresh air that was needed, and much more than was pleasant. I remember well how we used to rotate before the huge fires like fowls on a spit, 'burning on one side, and freezing on the other,' and often getting 'warmed' by the master because we did not study. The survivors of those days were healthier than now, because the delicate ones were all killed off. It was really 'the survival of the fittest.'

"A school-room may be warmed by an open fire, steam-coils, radiators, and furnaces or stoves. Open fires and stoves are the only methods of heating used in our country schools at present, although it is hoped that properly-arranged furnaces will come into more general use in the near future. In a small room an open fire is the most cheerful and healthful mode of warming, furnishing an excellent outlet for foul air, but as the intensity of radiant heat decreases as the square of the distance increases, it is impracticable to heat a large room by this method; those near the fire being too warm, and those in the back of the room suffering from cold. Open stoves are objectionable for the same reasons, though not to the same extent. With a closed stove, as they are commonly used, it is impossible to introduce sufficient fresh air for ventilation, without having dangerous and uncomfortable draughts, and they furnish no outlet for foul air. Then, again, as the heating from stoves is more by radiation than convection, they also heat the portions of the room nearest to them to an unpleasant degree, while distant parts are too cold. All these disadvantages of the closed stove can be easily remedied by a cheap and exceedingly simple device. The stove should be surrounded by a jacket of galvanized sheet-iron, standing at least twelve inches from the stove on all sides, being well-fitted to the floor at the bottom and extending a short distance above the top of the stove. A door should be made in front through which the door of the stove can be reached, or, what is preferable, the front of the stove can be left uncovered, the jacket being riveted to the corners of the stove in front. If the stove is square, the top as well as the sides should be covered with the jacket, and then the front of the jacket should left entirely open, just as the top would be in the case of the round stove. Two flues, at least eighteen inches in diameter, should extend from beneath the back part of the stove inside of the jacket through the outside wall of the house. The pure air would be constantly brought into the jacket through these flues and rising as it was heated, would be constantly poured into the room, not only pure but properly warmed. In addition, those sitting near the stove would be saved by the jacket from the excessive heat of direct radiation, having the same temperature as those seated in the back of the room. As regards both heating and ventilation, properly arranged furnaces act on essentially the same principles as the jacketed stove.

"Although the dangers arising from imperfect ventilation cannot easily be exaggerated, it seems to me that the subject has been invested with much unnecessary mysticism. Air once breathed is unfitted to sustain life. To continue to breathe air befouled by previous respiration and consequently deprived of its due proportion of oxygen, produces a gradually increasing torpor, and ultimately a stunting of the mental faculties. By the same means, the growth of the physical system is dwarfed, its vitality is diminished, and the child's chances are increased for becoming a victim to consumption and the other diseases which have their opportunity in all lowered conditions of the system. For our purposes, ventilation consists in the removal of this foul air and supplying fresh, pure air in its place. In our climate, during the summer months, this is not difficult; but to do it efficiently during the cold weather, without great derangement of the temperature of the room, or the production of uncomfortable and dangerous draughts, is the most difficult as it is the most important question in the building and management of school-houses. It cannot be secured without skill and expense, and it should be laid down as a rule that that system of ventilation is very imperfect which requires the lowering of windows or the opening of doors, except during recess.

"Believing that the jacketed stoves and air flues just described will furnish the best and most practicable inlets for pure air, the question of proper outlets for foul air remains to be considered. These, like the inlets, should be ample in their dimensions and automatic in their action; and, in consequence of the last condition, must be dependent upon and in connection with the heating apparatus. This can be best and most economically done by building a very broad chimney with three compartments throughout its entire height: the central one serving for the chimney proper, and the two lateral ones as foul-air flues. For a room of the dimensions before given, each of the air flues should be at least eighteen inches in diameter, should only be separated from the smoke flue by one thickness of brick set on edge, and should be smoothly plastered on the inside. They should open free into the room near the floor, their full size, and be properly arched at the top to prevent the entrance of rain. Whenever the stove is used, an upward current will be created in each of these air-chambers by the heat communicated from the smoke flue, and two columns of foul air eighteen inches in diameter will be constantly passing from the room, while, by the action of the jacketed stove, two volumes of pure and properly warmed air, of the same dimen-

sions would be as constantly rushing in to supply its place. Another place for the foul-air flues equally simple and efficient, and based on the same principles, would be to make one apartment in the chimney 20 by 36 inches, which should open freely into the room near the floor, and have the stove-pipe pass up through the centre of this flue, penetrating the arched covering at the top. By actual experience and by careful and repeated tests by the thermometer, it has been found that a lake of cold air almost constantly exists near the floor in school and other rooms, while the air in the upper part of the room is unduly heated. This reverses the desired conditions, by keeping the feet cold and the head hot. In consequence of this, and of the fact that the lower stratum of the air usually contains more carbonic acid if the air is foul, the foul-air flues should always open into the room near the floor that they may constantly act on this cold, foul air. The openings into the air-flues should be covered by some ornamental grating, but no provision should be made by which the teacher or any one else could close them.

"WATER SUPPLY AND OUT-HOUSES.

"Unless a good spring is convenient, a well or cistern should be dug at a safe distance from the privy, should be built up well from the ground to prevent the entrance of surface water, and should be securely covered.

"A wood-shed or coal-house, as the case may be, should be provided for every school-house, and should be kept well filled with fuel. The shameful neglect of trustees and parents on this point, has caused untold suffering and disease to children, and should be carefully watched in the future.

"A distinguished modern writer has said that the true test of a nation's civilization is to be found not in the number and magnificence of its public buildings, but in the neatness of its privies.

"This scarcely over-estimates the importance of these conveniences to health. Every school should have a well-constructed and well-kept privy for boys and one for girls, with one seat and a urinal for every twenty-five boys, and one seat for each sixteen girls. They should be inspected daily, and cleaned frequently, and any defilement of them should be treated as an offense against decency. They are necessary not only for the immediate health and comfort of the children, but also for their proper hygienic and æsthetic culture. This is the opprobrium of practical sanitation, and if proper opinions and habits could be formed in children in regard to it, they might in time spread to their elders.

"Necessarily limited as to both time and space, the important questions in school house construction have only been touched upon. A sentence has called attention to subjects, the importance of which upon the health and happiness of the rising generation, demands a volume. What has been said may at least show how important the school and health authorities are to each other, and I feel sure that this importance will become more and more apparent as the work progresses. The local board of health in each county of the State, selected always from the leading physicians and citizens of the county, will give all the aid in their power to the trustees in the construction of schools. (*To be continued.*)

EDITORIAL DEPARTMENT.

PERISCOPE.

Remarks on Tests for Albumen in the Urine, New and Old.

This subject is so important that the following remarks by Dr. George Johnson, in the *British Medical Journal*, are worthy of reproduction.

In a paper on the above subject in the recently published *Manchester Medical Chronicle*, Dr. William Roberts, referring to the fact that the urine in health contains various forms of albuminoid matter, expresses his belief that the new tests for albumen which have recently been brought into prominence, especially picric acid, tungstate of soda, potassio-mercuric iodide, and the acidulated brine-test, "produce freqnently in the urines of perfectly healthy persons a reaction which is undistinguishable from the reaction which indicates disease or abnormality." This point was put to the proof by the examination of the urine of thirty-one healthy persons—students, candidates for insurance, and others, who exhibited no signs of disordered health, and in whose urine heat and nitric acid gave no indication of albumen.

Dr. Roberts, of course, needs not to be reminded that albumen, in greater or less abundance, and for long periods of time, may be unquestionably present in the urine of persons who exhibit no signs of disordered health. If this were not so, albuminuria would not be so frequently unsuspected and overlooked as it is.

Dr. Roberts proceeds to state that "the acidulated brine-test gave a reaction in eleven cases, picric acid in fourteen, the tungstate test in twenty-eight, and the mercuric iodide in twenty-nine cases."

Deferring for the present what I have to say of picric acid, I should have expected, from observations which I have quite recently made, that the other three tests would give a slight but appreciable reaction in every specimen of normal urine. It is a fact that all normal urine contains a small but variable proportion of mucus.

Now, mucin is precipitated by dilute acetic acid and mineral acids. (See the article Mucus, in Watts's *Dictionary of Chemistry*, vol. iii, p. 1059–60.) It is also precipitated, as Dr. Oliver has shown (*Bedside Urinary Testing*, p. 37), by citric acid. The addition of a small quantity of acetic or citric acid to normal urine gradually renders it slightly but decidedly turbid, by coagulating the mucin; and Dr. Roberts mentions the fact that, when nitric acid is added to albuminous urine,

"the albumen is thrown down just above the line of junction of the two liquids, while the mucin is brought into view toward the upper part of the column of urine, where it gradually forms a diffused haze, quite distinct from the opalescent haze at the line of junction."

To this I may add that, when nitric acid is placed at the bottom of a column of normal urine, a diffused haze of coagulated mucin may commonly, after a time, be seen near the upper part of the column.

Seeing, then, that mucin is precipitated by both mineral and vegetable acids, we are at no loss to understand that any test containing one or other of these agents should give a reaction with normal urine. The acidulated brine contains hydrochloric acid, the tungstate of soda and potassio-mercuric iodide require the addition of either citric or acetic acid before they act as albumen-precipitants; and they, one and all, by the reaction with mucin, slowly cause, in most, if not all, normal urines, a cloudiness more decided than that which results from the actions of the acids alone. With picric acid, however, the case is entirely different. In the form of a saturated aqueous solution, and uncombined with any other agent, it is a most delicate albumen-precipitant, but it gives no precipitate in normal urine unless an acid, such as citric or acetic acid, be added to it. This can readily be proved by the following experiment: Take about a drachm of freshly-passed normal urine, and add an equal bulk of picric acid solution. The yellow mixture will remain quite clear, unless, as sometimes, though rarely happens, some turbidity results from a deposit of urates, which would be at once removed by heat. Now add a few drops of dilute acetic or citric acid, and the mixture will, in a minute or two, become hazy from precipitated mucin, the haziness occurring much more slowly than the immediate opalescence, which results from the presence of a slight trace of albumen, but, like that, being unchanged by heat.

Another experiment consists in adding acetic or citric acid to normal urine, then, after waiting a minute or two to complete the coagulation of the mucin, passing the urine through a filter and adding picric acid to the filtrate; when the mixture will remain quite free from turbidity. I have tested many hundred specimens of normal urine with picric acid, and I confidently assert that in such specimens, no precipitate or haziness occurs when unmixed picric acid is used as the test-agent; and it may be that the different results with this test obtained by Dr. Roberts are due to his having added acetic or citric acid to the picric acid in his experiments. The only precipitates other than albuminous which may result from picric acid, employed alone, are urates, which rarely occur, except when the mixture is allowed to stand for some time; peptones, which I have met with only twice in as many years; the vegetable alkaloids, such as quinine, when large doses are being taken. These all differ from an albuminous precipitate in the fact that they are readily and completely redissolved by heat, while they may be distinguished from each other by the microscope. (See the author's lectures on *Albumen and Sugar Testing*, p. 11, Smith, Elder & Co.)

It appears, therefore, from very numerous and careful observations, that albumen is the only substance found in the urine which gives with picric acid a precipitate insoluble by heat.

The difference, then, between picric acid and the other new tests for albumen is this—that picric acid, unmixed with other reagents, while it is a most sensitive and trustworthy test for albumen, gives no reaction with mucin. On the other hand, the potassio-mercuric iodide, tungstate of soda, and brine, do not precipitate albumen, unless when combined with an acid; and this combination gives a reaction with mucin, which is not distinguishable from a minute trace of albumen.

I have been in the habit of using the potassio-mercuric iodide only as a check upon the picric acid test, when small quantities of albumen only were present, and, until lately, had not thought of applying it to normal urine. I now find, however, that this test-liquid, when acidulated—as it must be, to act at all—gives a distinct opalescence in most, if not all, normal urines. I find, too, that after the mucin has been removed from normal urine by its coagulation with acetic or citric acid, and subsequent filtration, the addition of the potassio-mercuric iodide to the filtrate causes a decided opalescence, which is probably due to the precipitation of some substance other than mucin in the urine.

In testing urines which contain a mere trace of albumen, it is important to remove any turbidity that would interfere with the process. Urates would be removed by heat, suspended mucus and other particles of filtration. The addition of the picric acid solution to a turbid specimen might give a fallacious appearance of coagulated albumen, when, in fact, there is nothing more than some increased opacity, due to the yellow staining of the suspended particles.

Picric acid is itself sufficiently acid, when added in excess, to dissolve and clear a phosphatic turbidity. In the rare case of the urine being so highly alkaline as to prevent the coagulation of the albumen by an excess of picric acid, the plan is to add sufficient citric or acetic acid to neutralize the alkali, then to filter, and add the picric acid to the filtrate.

It appears, then, that picric acid as a test for albumen is more free from fallacy than any other, not even exceping heat and nitric acid, which Dr. Roberts expresses his determination to fall back upon. Of course, in a doubtful case, no one would neglect to apply more than one test. That picric acid is a more sensitive test than heat and nitric acid is easily proved by taking a highly albuminous specimen and gradually diluting it up to the point where—though these tests fail to detect it—picric acid still give a distinct reaction.

The main advantages of picric acid as a test for albumen are the following. It instantly detects a small amount of albumen which nitric acid would indicate only slowly or not at all; while, on the one hand, an insufficient addition of the test does not, as is the case with nitric acid, prevent the subsequent coagulation by heat; neither, on the other hand, does an excess of picric acid redissolve the precipitate, as does an excess of nitric acid. For bedside urinary testing, the portability of the innocuous powder is a great convenience. The fact that, with caustic potash, it is an infallible qualitative and quan-

titative test for sugar, may be said to more than double its value as an urinary test. For bedside use, Mr. Hawksley, 357 Oxford street, makes a waistcoat-pocket test-case, consisting of a test-tube four inches long, in which are packed two smaller tubes, one containing picric acid powder, the other grain-lumps of caustic potash, and also a small spirit lamp. These are enclosed in a metal case, not much larger than a pencil-case.

Another small case contains a nipple-pipette, which, amongst other uses, is convenient for conveying urine from the vessel to the test-tube.

The picric acid which is used for sugar-testing should be purified by recrystallization. The commercial samples usually give a red color when boiled with liquor potassæ; and I lately saw an impure sample which not only gave this red color, but the liquid was rendered turbid by fine granules. The impurity was removed by solution and recrystallization. A simple test of the purity of picric acid for chemical purposes is to boil a mixture of one volume of the saturated solution with half its volume of liquor potassæ. The resulting liquid should be quite pellucid, and of a pale lemon yellow color, with no red tinge.

Pharyngotomy.

Before a recent meeting of the Academy of Medicine in Ireland (*Med. Press*, July 16, 1884), Mr. Hayes read a paper upon two successful cases of pharyngotomy. The first was that of a man, æt. 45, who swallowed a threaded needle, eye foremost. His efforts to withdraw the needle by pulling the thread only served to imbed the point more deeply. He was admitted to hospital two days after the occurrence. Various attempts at removing the needle having proved unavailing, pharyngotomy was undertaken. An incision was made on the left side of the neck from the body of the os hyoides to the superior margin of the cricoid. The parts were caused to bulge by passing a staff into the mouth and pharynx, and upon the point an incision was made, the opening being then enlarged with the fingers. The needle was found embedded in the tissues. It was exposed by scraping with the finger-nail and by slight traction of the thread, and grasping the needle with a forceps, it was withdrawn. The patient recovered.

In the second case a lady had suffered some months from what was supposed to be ordinary sore throat. On examination, a tumor, about the size of a small egg, was found situated below the level of the epiglottis on the right side in the sinus pyriformis. The symptoms of obstruction becoming urgent, it was determined to remove the tumor. An incision was made in the line of the right sterno-mastoid muscle from one inch below the angle of the jaw to the level of the upper ring of the trachea. The pharynx was opened by dividing the tissues on the projecting end of a catheter introduced through the mouth, and the wound was enlarged, first by the forceps, then by the fingers. The tumor, which sprang from the styloid ligament and process, was removed piecemeal, and was found to be a spindle-celled sarcoma. The patient made a good recovery, but the disease returned in a few months, and she succumbed. Mr. Wheeler emphasized the necessity of a free external incision, a small incision into the pharynx, which can be dilated as described, in order that the nerve filaments may not be irreparably injured. He deprecated the employment of sutures, and advocated the establishment of ample drainage.

Mr. Tufnell having seen the two cases, concurred fully in what Mr. Wheeler had suggested as to the feasibility of a large free external incision, the advantage derived from which was most desirable. Nothing could be more satisfactory than the mode of performing the operation, and the result. He referred to a case in which Liston extracted a pike-hook from the pharynx of a boy, first by freeing the hook from its attachments and next by jerking the double ends into a sponge. A needle might be broken in the extraction.

Mr. Story said the needle could be cut in two and then extracted by means of a magnetized forceps. He instanced a case of a boy who had swallowed a needle. The boy was, on his recommendation, kept on slops in the hope that the needle would work down with the fæces, which it did in a few days.

The chairman remarked that one case was seldom a guide to another. Early pharyngotomy ought to receive attention.

Dr. Hepburn testified to the benefit resulting from the operation.

Mr. Franks considered the great point was whether foreign bodies in the pharynx should be removed by an internal or an external operation. Opinion justified the necessity of pharyngotomy in certain cases; but where there were two natural cavities, the question was of the necessity of making an unnatural opening at all. In England the question was discussed of opening the thyroid cartilage or the larynx to get at foreign bodies, and the concensus of opinion was against external operation until every effort by natural means failed. The laryngoscope should be employed, and where a foreign body was seen in the larynx it could, in the majority of cases, be easily got out. Laryngotomy should only be used in extreme cases. In most books pharyngotomy was not mentioned, and the reason was that, as a general rule, the operation was unjustifiable.

Dr. M'Ardle would confine pharyngotomy to such tumors as Mr. Wheeler had mentioned, but he did not see how a tumor growing from the styloid process could be extracted through the mouth without injuring some of the large vessels.

Dr. Harley testified to the immediate relief secured from the operation.

Mr. Thomson asked whether the tumor did not spring from parts external to the pharynx altogether. If that were so, there was no occasion to perform pharyngotomy except for the convenience of putting in the finger to push the tumor upwards.

The president, in reply, said he had contemplated cutting the needle across with a forceps, but did not succeed, though he had the aid of Dr. Haughton and two engineers. Of course, he would not perform pharyngotomy where he could remove the tumor through the mouth. Tumors of the pharynx growing from the base of the skull

could not be removed through the mouth. The laryngoscope was a great help in diagnosing the exact situation of the needle and the tumors. The walls of the pharynx were outside the tumors.

Micrococci in Relation to Wounds, Abscesses, and Septic Processes.

Dr. W. Watson Cheyne contributes a very interesting article on this subject to the *Brit. Med. Jour.*, September 27 and October 4, 1884, the chief points of which may be thus stated:

1. There are various kinds of micrococci found in wounds treated aseptically, differing markedly from each other in their effects on animals. They agree in growing best at the temperature of the body, and in causing acidity and sweaty smell in the fluids in which they grow. The experiments show that cultivations may be carried on in fluids with accuracy, provided the precautions mentioned be observed.

2. The micrococci tested in these experiments grew best in materials exposed to oxygen gas. They grew only with difficulty in the absence of oxygen. Eggs were not good pabulum.

3. Their effect on animals was not altered by growth with or without oxygen.

4. The effects of these micrococci on rabbits and man were not similar, some of the most virulent forms for rabbits causing no deleterious effect in wounds in man.

5. The kidney is apparently an important excreting organ for organisms.

6. Organisms not capable of growing in the blood may yet cause serious effects by growing in the excretory canals. This may explain some cases of pyelitis.

7. Where an organism is not markedly pathogenic, it may be necessary to introduce a large quantity before morbid changes are set up.

8. Suppuration is not always due to micrococci; it may be caused by chemical irritants, such as croton oil.

9. Micrococci are always present in acute abscesses, and are probably the cause of them.

10. In some cases, the micrococci are the primary cause of the inflammation and suppuration, as in pyæmic abscesses; generally, however, they begin to act after inflammation has been previously induced.

11. This inflammation may be caused by an injury, by the absorption of chemically irritating substances from wounds, by cold, etc.

12. There are several different kinds of micrococci associated with suppuration.

13. Micrococci cause suppuration by the production of a chemically irritating substance, which, if applied to the tissues in a concentrated form, causes necrosis of the tissue, but, if more dilute, causes inflammation and suppuration.

14. The conditions in wounds and abscesses are not the same, inasmuch as in the former there is opportunity for mechanical and chemical irritants to work.

15. There is no reason for denying the existence of "antiseptic suppuration."

16. Tension may also cause suppuration, but it is, perhaps, most frequently aided by the growth of micrococci. These organisms need not be of a very virulent kind. It is also probable that the products of inflammation are themselves irritating and capable of exciting or keeping up inflammation.

17. The micro-organisms of septicæmia, of pyæmia, and erysipelas, are different from one another and from those of abscesses. In erysipelas, the micrococci grow in the lymphatic spaces. In pyæmia, they grow in the blood to form colonies and emboli. In septicæmia, they may only grow locally, the symptoms being due to the absorption of their ptomaines; or if they grow in the blood they do not form colonies and emboli. Septicæmia may also be due to other organisms besides micrococci.

18. There are no facts to support the view that it is the same micrococcus which, under different conditions, causes these various diseases. The experiments of conversion of innocent into malignant forms, and *vice versa*, are unreliable.

Local Anæsthesia by the Hydrochlorate of Cocaine.

Dr. R. J. Levis thus writes in the *Medical News*, November 8, 1884:

In a double extraction of hard cataract there was no pain produced by the graspings of the conjunctiva in the fixation of the eyes, in the corneal incisions, and in the iridectomies.

A four per centum solution was freely brushed over the entire conjunctival surface three times, at intervals of ten minutes, and the operations were commenced in forty minutes after the first application. No irritation was produced, and the only sensation described was that of "numbness and hardness." The entire conjunctival surface seemed insensible to repeated pinching with the fixation forceps.

In a single extraction of hard cataract a four per centum solution was brushed over the ocular and palpebral conjunctiva, with the eyelids freely everted. Three applications were made at intervals of ten minutes, and the operation was performed at the lapse of twenty-five minutes. The patient asserted decidedly that she felt no pain whatever.

Preparatory to the operation for uterine procidentia and rectocele the vaginal and labial mucous surface was wiped dry, and a four per centum solution of the hydrochlorate of cocaine was thoroughly brushed over it. The sensitiveness was tested at three intervals of ten minutes each, and the application was repeated three times. There appeared to be at no time any decided loss of painful sensibility, and the operation was finally performed under the anæsthesia of sulphuric ether.

For the removal of a rather large tarsal tumor, the ocular and palpebral conjunctiva and the exterior of the eyelids were brushed with the solution as previously used, at intervals of ten minutes, and the excision was performed at the lapse of forty minutes. The operation seemed to be as painful to the patient as if performed without an attempt at anæsthesia.

For the operation for lachrymal obstruction the application was made in the same manner and at the same intervals. The slitting of the punctum and canaliculus gave no pain, but the passage of the dilating probe down the lachrymal canal seemed to produce some uneasiness.

Prior to applying nitric acid as a caustic to a syphilitic ulcer on the tongue, the same manner and number of applications were repeated, the tongue having been wiped dry and held protruding between the teeth. No pain was produced on the thoroughly benumbed tongue.

Gastro-Nephric Fistula.

Before the Obstetrical Society of Boston (May 10, 1884).

Brief notes of a case of this extremely rare lesion were read by Dr. J. R. Chadwick, who reserved a full report until the case should be made complete by an autopsy.

A married lady, sixty-two years of age, had had attacks of gastric colic, with vomiting, at intervals of one to six weeks for seven years. She had had frequent micturition for a year and a half, and had seen particles of food in her urine. She entered his private hospital on November 12, 1883, when the abdomen was found to be generally tympanitic, except in the upper part of the right lumbar region, where a resisting, tender body was felt protruding from beneath the ribs like an enlarged kidney. Turbid urine was drawn from the bladder, the flow being occasionally interrupted by solid particles and by bubbles of gas. This urine was found by Prof. E. S. Wood to contain a "trace of albumen, much pus, a little blood, muscular fibre, boiled potato, vegetable fibre." The examinations of the urine were made for many consecutive days by Professor Wood, with essentially the same results. As the attacks of colic were apparently confined to the stomach, as the tumor was in the region of the right kidney, as the particles of food found in the urine were invariably undigested, and above all as no trace of bile was found in the urine, except for three days following an attack of vomiting, the diagnosis of gastro-nephric fistula was thought warrantable. This was accepted by Drs. G. H. Lyman and C. E. Stedman, who saw the patient in consultation. Various diets were tried without effect, so that after a month the patient was sent home to Rhode Island unrelieved, as her condition did not warrant a resort to the very hazardous chances of an operation. Dr. Chadwick had found in medical literature the reports of but two authentic cases of this lesion; one in a French thesis of 1866, where a gastro-nephric fistula had been discovered post mortem, but no history of its course recorded; the other in an Italian journal published in 1866, where no confirmation of the diagnosis by autopsy had been reached at the time of publication. The probable origin of these lesions is in purulent nephritis.

Dr. Lyman said the case was one of the most interesting that he had ever seen: it was wonderful that the woman had maintained her nutrition so well. He inquired if the woman had been fed by rectum.

Dr. Chadwick replied that she had not. It was found that liquid food given by stomach escaped without much change through the bladder; hence it was thought best to give solid food which remained longer in the stomach. At one time there was much gas discharged by the bladder.

Dr. Abbot asked if the urine had been examined at times of long abstinence from food, and compared with the urine passed soon after taking food, with a view to determining whether the fistula was gastro- or intestino-nephric. The reply was that no such experiment had been tried.

Some Observations on the Bacillus of Tuberculosis.

So many methods of observation and of staining the bacillus of tuberculosis have been suggested and recommended as possessing various advantages, that a systematic investigation of their comparative merits seemed to be necessary in order to the determination of the diagnostic value of each. Such an investigation has been very thoroughly carried out by Dr. Harold C. Ernst, of Jamaica Plains, Mass., and the results are given in the October issue of *The American Journal of Medical Sciences*. These results have been obtained after the expenditure of much time in the preparation of the slides, much care in the selection and compounding of the staining reagents, and by the most careful comparison of the slides one with another.

As far as his experience goes, and Dr. Ernst has tried every method of staining that he has been able to find mentioned, Koch's and Ehrlich's methods are the only ones upon which reliance can be placed under all circumstances. With neither of them has he succeeded in finding an organism besides the bacillus of tuberculosis which would resist the decolorizing action of nitric acid, and which would not take the contrast color. Therefore, as all the others seem to be untrustworthy from a diagnostic point of view, one of these two methods, more especially that of Koch's, should be used in all investigations upon this subject. Unless one of them is used, every observer is liable to the error of mistaking other organisms for the bacillus of tuberculosis, or to the still greater one of failing to detect it in places where proper methods of manipulation make its presence very manifest.

As far as the observation of Dr. Ernst extends, the fact of the occurrence of a peculiar form of bacillus in tuberculous lesions is an invariable one. He has never met with a case which could be considered tuberculous in which he has failed to find bacilli in larger or smaller numbers, and examinations, yielding negative results as regards the occurrence of bacilli with the special staining reaction of the bacillus of tuberculosis, have been made in a large number of cases of sputum from other diseases than tuberculosis.

Dr. Ernst also narrates a series of inoculation experiments, which he made with great care, with pure cultures of the bacillus tuberculosis, and in all but one case, in which no result was obtained, the characteristic bacilli were found, thus constituting confirmatory evidence of the specific nature of the bacillus of tuberculosis.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——A healthy reaction against the tendency to therapeutic nihilism is found in such an article

as that by Dr. E. C. Seguin, on "the American method of giving potassium iodide in very large doses for the later lesions of syphilis: more especially syphilis of the nervous system." By large doses he means say one drachm of the iodide a day. This may be considered heroic medication. It has, however, first-class testimony in its favor, and Dr. Seguin's article presents this testimony in its full force.

——In a reprint from the *Trans. of the Medical Society*, of Pa., Dr. Charles Turnbull discusses the question "Does a chronic discharge from the ear make life insurance hazardous?" His answer is that it does in certain cases, and his article is devoted to defining which those cases are.

——A suggestive reprint from the *St. Louis Weekly Medical Review*, by Dr. F. L. Miles, of Elkhart, Ind., is upon the topic, "Ocular irritation a cause of nasal affections."

——Dr. J. C. Shoemaker, of this city, sends us a reprint on the use of jequirity in diseases of the skin. It contains a number of hints that dermatologists will appreciate.

BOOK NOTICES.

Transactions of the Indiana State Medical Society, 1884, 8vo., pp. 352.

This volume is both handsome in external appearance and satisfactory in its contents. The number of original papers is considerable, and they are on topics of general interest. The address of the President, Dr. S. E. Munford, is a stirring appeal for a higher grade of scholarship in the profession. Four or five of the writers chose as their theme some of the points in legal medicine, such as malpractice suits, medical legislation, and the like. Next to this, surgery challenged the attention of the members. Of special subjects in this branch we may name "Fracture of the Femur," by Dr. J. W. Marsee "Pruritus Ani," by Dr. G. J. Cook; "Angel-wing Deformity," by Dr. G. W. H. Kemper; "Cases of Abdominal Surgery," by Dr. J. Eastman, and others. All the papers merit the distinction they have received of being put in print.

Surgical Delusions and Follies. By John B. Roberts, A. M., M. D. 18mo., pp. 55. Philadelphia, P. Blakiston, Son & Co.

In this enlarged version of an address which the author delivered before the Medical Society of Pennsylvania, he criticises sharply certain practices and procedures, many of which still hold a footing in hospitals and clinics. Such delusions are the use of styptics, the innocuity of chloroform, the loss of blood, the danger of trephining, the bandaging of broken limbs, etc. Some of what he stigmatizes as follies in surgery will probably find warm defenders for a long time to come, and perhaps the unfavorable opinion passed upon them may have to be reversed. But in most cases the author is unquestionably correct.

Lectures on Diseases of the Rectum. By J. Williston Wright, M. D. Small 8vo., pp. 170. New York, Bermingham & Co. Price $1.25.

The author justly says that the class of diseases of which he treats "are as common as any which afflict man." Every physician can bear testimony to this. A brief, practical work on them, like the present, cannot fail to command a ready sale. The topics considered are abscesses, fistula, hemorrhoids, pruritus, fissure, stricture, polypus, prolapse, and cancer. The writer's aim is to set forth the symptoms and treatment of these affections in the manner most suitable to students, and he has succeeded admirably in his attempt.

Medical Diagnosis: A Manual of Clinical Methods. By J. Graham Brown, M. D. 8vo., cloth, pp. 285. New York, Bermingham & Co., 1884. Price $1.50.

Dr. Brown is a physician of Edinburgh, and his work is an example of the thorough and conscientious labor for which that school has won a just celebrity.

His plan is not that found in many other works on diagnosis—that of taking up leading symptoms and tracing them in various diseases. He pursues what we may call the anatomical method. That is, he begins with a chapter on the general aspect and condition of the patient, and then proceeds to investigate the alimentary system, the abdomen, the hemopoietic system, the circulatory, respiratory, integumentary, etc., systems, thus passing in review the whole body. This is a natural and easy plan of arranging his material, and is quite as advantageous as any other.

An Aid to Materia Medica. By R. H. M. Dawbarn, M. D. Small 8vo., pp. 86. New York, J. H. Vail & Co.

The writer of this work aims to give in the briefest manner possible an epitome of the pharmacopœia. The drug and its preparations are arranged in tabular form; the doses of each is given in both the old and the metric system; the composition and synonyms are added, and the solubilities. The book is interleaved, so that it is convenient for adding the novelties to the materia medica. The plan is a good one, and we do not doubt the manual will find a ready sale.

THE
Medical and Surgical Reporter,
A WEEKLY JOURNAL,
ISSUED EVERY SATURDAY.

D. G. BRINTON, M. D.,
JOSEPH F. EDWARDS, M. D., } EDITORS.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year,	**$5.00**
Quarterly Compendium of Med. Science, -	**2.50**
Reporter and Compendium. - - - -	**6.00**
Physician's Daily Pocket Record, - -	**1.50**
Reporter and Pocket Record, - - - -	**6.25**
Reporter, Comp. and Pocket Record, - -	**7.00**

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M. D.,
115 South Seventh Street,
PHILADELPHIA, PA.

THE
QUARTERLY COMPENDIUM
OF
MEDICAL SCIENCE.

The attention of our readers is especially called at this season to the ***QUARTERLY COMPENDIUM,*** which we publish.

It is, in fact, a supplement to the ***REPORTER,*** being made up of articles which have not appeared in the weekly, but yet are of value and interest to the physician.

It contains about 150 pages of reading matter in each number, and the whole four numbers, embracing 600 pages of choice material, will be sent to paid-up subscribers to the ***REPORTER*** for the very moderate price of

ONE DOLLAR,

in advance, for the year.

Address
DR. D. G. BRINTON,
115 South Seventh Street,
PHILADELPHIA.

THE LAWS GOVERNING THE REMOVAL OF THE DEAD.

The subject of the removal of the dead in its legal aspects brings up many considerations, such as the right of the public to remove bodies from cemeteries which have become disused, or unhealthful, as in crowded cities; the right of cemetery associations to remove bodies from an old location to a new one, when the property is sold, and the like. But the question which will here be considered is whether there is a right in the relatives to remove a body once interred, if any opposition is made, and in whom the power of decision over the matter resides.

It may be said in general, that a person has a right to direct the interment of his body in the place he desires, and that such desire will be respected if the point comes before a court for decision. This may be directed verbally or by will. (4 Bradf. 503.)

If, however, the relatives and the executors are unwilling to carry out the wishes of the deceased as to a place of interment, there is no apparent way of enforcing them, as the public has no interest in the matter sufficient to bring it before a court for determination.

But when once interred, it becomes a question as to the right of removal at all, and the courts have required some reason to be given before granting an order for disinterment There are city ordinances to be respected also in the removal of bodies from cemeteries within municipal limits, and in addition the regulations of the cemetery associations themselves have to be obeyed. So, it is not always an easy matter to remove a body when there is no opposition on the part of the surviving relatives. When there is such opposition, the cases have generally been decided on their own merits, without the courts considering themselves bound absolutely by precedents. It has even been questioned whether the friends had a right to remove a body against the permission of the owner of the lot. (Weld vs. Walker, 130 Mass., 422.)

The law favors the "repose of the dead," and consequently some valid reasons are required be-

fore it will allow a hand to be laid upon the ashes of the departed.

Most of the States have laws in regard to disinterments committed violently for purposes of dissection, or for gain or profit in securing a reward by the return of the body, and such offences are made felonies or misdemeanors, and severely punished, but these public concerns are not here discussed. A good many years ago Congress passed a resolution to remove the body of George Washington from Mount Vernon to the capital, but the legal representatives objected, and the matter was dropped. The question of removal as presented to the courts, is generally between surviving members of the family of the deceased, some of whom desire to remove the body and some do not. In Wynkoop *vs.* Wynkoop, 42 Penn. St. 293, the contest was as follows: Col. Wynkoop had been buried with the honors of war in his mother's burial place by the consent of his widow. In about a year's time she desired to remove the body, but the owners of the cemetery and her husband's relatives objected. The widow was administratrix of the estate, and in such capacity applied for an order of removal, but the court decided that her duties as administratrix ended with the burial, and that the circumstances of the case justified a refusal to permit a removal when the family of the deceased were opposed to it.

In a later case (1876), also in Pennsylvania (Lowrie *vs.* Plitt 11, Philadelphia, 303). Mrs. Henrietta Lowrie, in accordance with her request and the concurrence of all her children except one, who was living in Lima, Peru, was buried in the lot belonging to her sister, Mrs. Plitt. This son returned to the United States, paid the expenses of his mother's funeral, and died leaving a will in which he directed his executors to build a vault at a cost of $5,000, in which were to be placed the bodies of his mother and any of his brothers or sisters who might hereafter die.

The executors erected the vault, and requested permission to remove the body from Mrs. Plitt's lot. This was refused, and then an application was made to the court and resisted by the sister and daughter of Mrs. Lowrie. The court in refusing the application, said those of the "children who survive are divided on the question of removal. She is with her father, mother, sisters, and first-born. Upon the granite which marks their resting-place, her name is graven with theirs, and beneath it their ashes have commingled. It is fitting that they should remain undisturbed."

In Pierce *vs.* Swan Point Cemetery Co., 10 R. I., 227, a Mrs. Metcalf complied with her husband's request, and buried his body in his own lot in Swan Point cemetery. This lot passed by descent to his only child, a daughter, and when Mrs. Metcalf, against her consent, removed the remains, the court forced her, on the application of the daughter, to restore them to their first resting-place.

In Secor's case, 31 Leg. Int. 269, a New York court granted the same protection to the grave at the application of the widow, as had been given notwithstanding her opposition in two of the cases already cited. In this case the widow had interred the remains of her husband, when her son, claiming that he had purchased a plot of ground for a family burial place at the request of his father, insisted on removing the remains. The widow applied to the court for a perpetual injunction against him, and this was granted and sustained on appeal.

The court said: "In the present case the body was buried in a proper place without dissent. By what right then, can the next of kin claim a removal against the will of the surviving wife? It certainly cannot be upon the reasoning that they have an interest in the body as property, for it is clear that there can be no property in a corpse, 2 East's P. C. 652. * * * A proper respect for the dead, a regard for the tender sensibilities of the living and the due preservation of the public health, require that a corpse should not be disinterred or transported from place to place except under extreme circumstances of exigency."

A Massachusetts' case, Weld *vs.* Walker, 130, Mass. 422, permitted the removal, but not in a

manner to throw doubt upon the propriety of the decisions in the cases already cited. The husband procured the grave clothes and coffin for his deceased wife, and after the earnest solicitation of the two husbands of his wife's sisters, buried her in a lot belonging to them. He afterwards desired to remove the remains to a lot owned by himself, and in an application to the court stated that in his grief he did not realize what he was doing in the first interment, that he had no authority to decorate or care for the grave in its present location, and asked for leave to remove the body. This was granted, the court holding that "If a husband has not freely consented to the burial of his wife in a lot of land owned by another person, with the intention or understanding that it should be her final resting place, a court of equity may permit him, after such burial to remove her body, coffin and tombstone to his own land and restrain that person from interfering with such removal."

In July of the present year an application for removal was made to the Surrogate of Queens county, New York, under rather peculiar circumstances. Gardiner H. Wolcott died in November, 1881, supposed to be intestate. He was buried in Greenwood cemetery, Brooklyn, and his property was divided up between the next of kin.

A short time since, a will was found which directed that the body should be interred in Greendale cemetery, Meadville, Pa., and that this expense should be paid from his estate. The executors named in the will had no money with which to pay the expense of removal, and they applied to the Surrogate for an order directing the next of kin to bear their proportionate shares of the expense. This application was resisted by them, and the Surrogate refused the application, saying that he would not order the removal under the circumstances against their wishes. If the will had been found at the time of death the interment would, of course, have been made as the deceased wished.

It will be seen from these cases that a disinterment is a difficult matter to accomplish against the wishes of the owner of the lot, or of any of the family of the deceased. This results from the fact that there is no absolute right of property in the dead body, remaining in any person whatever, and public policy requires that the ashes of the departed shall not be lightly or disrespectfully touched.

CORROSIVE SUBLIMATE AS A SURGICAL DRESSING.

It has been rumored that Sir Joseph Lister had withdrawn his great confidence in antiseptic dressings. This seemed strange to those who recalled the great enthusiasm with which this great teacher had advocated what we have come to call "Listerian precautions." In an address delivered at the opening of the Medical Society of London, and published in the *British Medical Journal*, October 25, 1884, Sir Joseph tells us that several instances have recently occurred, of results deviating from his typical experience in antiseptic treatment, such as he was in no way prepared to meet with, and in one case a fatal event ensued. Casting about for the cause of these failures, he came to the conclusion, which is a very plausible one, that volatile antiseptics, such as he had been using, principally eucalyptus and carbolic acid, were unreliable, owing to the very fact of their volatility, which not only rendered their proper preparation by the manufacturer very difficult, but also rendered them very liable to lose their antiseptic properties in a very short time, even when properly prepared. Iodoform, as he says, is not so volatile, but his experience does not recommend it as a very efficient germicide.

Dr. Koch's experience with corrosive sublimate, which is non-volatile, caused him to turn his attention in this direction, and his results have been very satisfactory.

From the *British Medical Journal*, October 25, 1884, we learn that the dressings have been found to be often very irritating, sometimes they have caused symptoms of poisoning, while the histories of the cases render it very doubtful whether in many in many instances a truly aseptic result has been obtained. We need not go over the ex-

periments narrated in Sir Joseph Lister's paper, the result of which is very much as follows: He finds that sublimate combines with albumen to form not an albuminate properly speaking, but a simple mixture of the two, and that this mixture is much less irritating than a watery solution of corrosive sublimate; and serum which has been passed in small quantities through a gauze containing sublimate will not undergo decomposition, though inoculated with putrefying materials. A large amount of corrosive sublimate, however, must be present in the gauze, in order to obtain this result, more especially if blood, instead of serum, be used for the experiment. As the result of the discovery of the less irritating nature of the combination of albumen and sublimate, a sero-sublimate gauze has been prepared. This is easily made by soaking gauze in serum containing sublimate; for, though precipitate forms on first adding sublimate to albumen, this redissolves in excess of albumen. Sir Joseph Lister finds that a sero-sublimate gauze containing 2 to 4 per cent. by weight of sublimate, is apparently non-irritating; while, at the same time, it is an effectual antiseptic dressing. Whether this gauze will supersede carbolic gauze, or whether objections may not be found to it, can only be determined as the result of more extended trial and investigation than that to which it has as yet been subjected. In any case, the sublimate cannot, as far as is at present evident, supersede carbolic acid for the purification of instruments, sponges, and the skin, or for the spray.

Notes and Comments.

Oil of Gaultheria in Rheumatism.

So many remedies have been from time to time highly vaunted in the treatment of rheumatism, to be afterwards relegated to comparative obscurity, that we always look with distrust upon any new recommendation. However, the oil of gaultheria is so highly recommended by Dr. H. H. Seelye, of Massachusetts, in the *New York Med. Jour.*, November 8, 1884, that we feel called upon to notice his remarks.

About two years ago its use was commenced in Bellevue Hospital, New York, when Dr. Seelye was house physician there, and its results were so satisfactory, that from that time onward it has been the main reliance in all rheumatoid affections.

The medicine, it was found, could be administered in various ways, the most agreeable being in capsules, either alone or mixed with salicylate of sodium, or in soda-water as a flavoring. But the method most employed was to give it in an emulsion of ten minims of the oil to half a drachm each of glycerin and water. If the patient had been sick for some time, and the inflammation of the joints was extensive, they usually ordered two drachms of this mixture every two hours during the day, and every three hours throughout the night. Under this treatment almost invariably within twelve hours the patient would express great relief, and by the end of twenty-four hours the pain and swelling would have left all the joints except, perhaps, a little in some one articulation; and there would only remain a slight stiffness of the previously-inflamed parts, due, probably, to the distension of the adjacent tissues by reason of the swelling, which had now disappeared. Before or about this time, however, the patient would generally complain of some ringing in the ears and deafness, similar to that produced by large doses of quinine, but usually not so markedly annoying in character, and he would be apt to have some headache or a sensation of fullness in the head. These symptoms occurring synchronously with cessation of pain, tenderness, and swelling from the joints, and with a sudden fall of temperature to the normal, were generally considered an indication for diminishing the dose of the medicine, and it was, therefore, usually reduced to one drachm every three or four hours, according to the relative amount of the cerebral and joint disturbance. If too much of the medicine was still given, its evil effects became more marked. The patient would now experience a loathing of the drug; nausea and vomiting would set in; the deafness, tinnitus aurium, and headache would increase; the muscles of the hands, limbs, and face would become tremulous; the countenance would be flushed, and the whole body be bathed in a profuse perspiration; and at length the patient would become delirious, till in some instances the symptoms so closely resembled those of delirium tremens, that it was often difficult or quite impossible to tell whether they were really the manifestations of the physiological limits of the remedy, or those of an alcoholic patient deprived

of his accustomed stimulants. These extreme symptoms, more or less modified, were observed in, perhaps, eight or ten cases of acute articular rheumatism, but they almost invariably occurred in patients who had been hard drinkers, and in whom the attack of rheumatism was most probably due to some unusual exposure to cold or wet while in a state of intoxication. In the large majority of cases only a little ringing in the ears was complained of, and this would soon cease upon the diminution or complete withdrawal of the drug. There were also very many cases in which no evil results were ever manifested, but the patient speedily recovered without experiencing any annoyance.

The Treatment of "Lawn-Tennis Leg."

The prevalence of the game of "lawn-tennis," has made common (more particularly in England) an accident which consists in the rupture of some portion of the muscular or tendinous structure of the calf. Dr. Wharton P. Hood thus describes the treatment in the *Lancet*, Oct., 25, 1884.

As soon as possible after the occurrence of the rupture, the patient should be placed upon a sofa, with his injured leg raised above the level of his head; and should be kept in this position for five minutes. This is an important preliminary, because the position alone will be sufficient to empty the limb of superfluous blood, and thus to reduce the swelling which is commonly present. A calf which is much enlarged, and very hard, will frequently return to its natural dimensions within the time specified; and the patient will at once obtain relief from the oftentimes distressing feeling of tension. Moreover, if the elevation of the limb be neglected, the plaster next to be described will soon be loosened by the subsidence of swelling, and will require to be replaced within a few hours. After a sufficient period of elevation, and while the leg is still raised, strips of adhesive plaster, each an inch and a half in width, and of length adapted to the size of the limb, should be applied from two inches above the ankle-joint to above the thickest part of the calf, somewhat as strapping is applied in the treatment of chronic ulcers of the leg. When the plaster is well adjusted, it disperses the effusion of blood and lymph and restores the natural flow of the circulation; while at the same time it holds all the muscular and tendinous structures firmly together, and practically converts the sound portions into a splint for those which are torn. As soon as the plaster is applied, the patient should be directed to walk about the room and to place the heel firmly, or at least fully, on the ground at each step. For the first dozen steps he will probably hesitate, and will maintain more or less of the limp with which he entered; but after a short time, finding that his pain is diminished, or possibly removed, he will gain confidence, and will walk with a pride in his own performance which is very interesting to witness. Until this point is reached, he should not be suffered to depart; for, if he does not walk properly before he leaves the surgeon, he will hesitate still more when alone, and will be likely to return to the ungainly progression which he exhibited at the commencement of the interview. Success in walking, in the first instance, will depend largely upon the temperament of the injured person. A resolute man, who believes in his doctor, will walk at once, while a more timid patient will require coaxing and urging.

A Good Dressing for Ulcers of the Leg.

The boric-acid dressing of Lister, applied with a crinoline bandage, has been found most serviceable as a dressing for ulcers of the legs, at the Chamber's Street Hospital, New York. Dr. B. F. Curtis, who writes of it in the *New York Medical Journal*, November 8, 1884, claims for it the following advantages:

1. Firm and lasting support, even enabling patients to work.
2. Asepsis, and non-disturbance of the part.
3. Economy of time to both surgeon and patient.
4. Economy of material, one dressing costing but little more than any ordinary dressing and bandage, and lasting three times as long.

The mode of application is as follows: The leg and foot are thoroughly washed with a 1-to-40 carbolic-acid (or 1-to-1000 corrosive-sublimate) solution, and the ulcer itself is washed with a saturated solution of boric acid. Over the ulcer is put a piece of thin gutta-percha tissue (as a substitute for the Lister mackintosh), large enough to extend about one-fourth of an inch beyond its edges on all sides, which has been soaking for some minutes in the boric-acid solution. The leg is wiped dry, sufficient borated or salicylated cotton to take up the discharge is laid over the ulcer, and the rest of the leg from the ankle to the knee is wrapped in a half-inch layer of cotton batting. An ordinary bandage is applied to the foot.

The crinoline bandage (three inches wide, ten to twelve yards long) has meanwhile been soaking for five minutes in water, and it is now squeezed quite dry and snugly applied over the

cotton from the ankle to the knee, making a thickness of three or four layers. Care must be taken to have the cotton project beyond both its upper and lower edges, as they may excoriate the skin when dry and stiff. In half an hour the crinoline will be dry; but, if time is important, an ordinary bandage may be applied outside of the crinoline, and the patient dismissed at once.

The patients are directed to return in a week; but if they should have any pain, or if the discharge from the ulcer should come through the dressing, to come at once. But the dressing can be worn for much longer than a week.

The Treatment of Burns and Scalds.

So many remedies have been recommended for the treatment of burns that we hardly know where to pin our faith. In the *Brit. Med. Jour.*, Oct. 11, 1884, Dr. J. Walton Browne tells us that he has had the most satisfactory results from the use of chlorate of potash. This remedy has been unsuccessfully tried by many physicians, but Dr. B. attributes this failure to the fact that the lotion was not applied of the proper strength, nor with sufficient frequency.

In superficial burns he directs the blisters to be punctured, and a bread-and-water poultice to be applied over all the injured surface every fourth hour, until the cuticle has become detached, which is generally accomplished upon the removal of the second poultice. He then commences the application of the solution of chlorate of potash, five grains to the ounce; pieces of lint of the required size, saturated with the lotion, are applied four times a day. The lint is covered over with gutta-percha tissue or oiled silk; all dressings being retained *in situ* by a bandage. The lotion must not be of greater strength than five grains to the ounce; of this strength it acts as a sedative, although at the same time stimulating the capillaries to the formation of new skin. If applied much stronger it causes pain; in fact, it acts as a caustic. In some cases, where the lint occasionally adheres to the wound, and is difficult of removal, without injuring the capillaries and causing bleeding, he adds to the chlorate of potash solution some glycerine, in the proportion of two ounces to the pint. To prevent the lint from adhering to the wound, Dr. Harkin has for years used an ointment composed of chlorate of potash and lard, of the strength of five grains to the ounce.

In the treatment of very deep burns, he advises the application of poultices until all sloughs are separated; granulations then spring up, and nothing seems to increase their activity and vitality equal to the potash solution, of the strength of five grains to the ounce; should the granulations become weak, flabby, or too exuberant, he uses a potash-lotion of the strength of ten grains to the ounce, and at the same time prescribes a mixture of chlorate of potash and tincture of perchloride of iron, to be taken three times a day. At any time, should there be offensive discharges, one can combine the potash-solution with some permanganate of potash.

Hydrofluoric Acid in Bronchocele.

Before the Liverpool Medical Institution Dr. J. Cameron related a case of bronchocele treated by hydrofluoric acid:

The patient was a female, æt. 20, a native of South Wales, who up to the commencement of the affection had enjoyed good health in every respect, and whose health remained good throughout, independently of the bronchocele. The enlargement began in 1881, and in the autumn of that year was the size of a large orange. The whole gland was affected, but the right lobe more than the left. It was soft and painless, and the breathing was stridulous. It had already been treated by the routine methods but without much benefit. Hydrofluoric acid was now given and continued for three months, but without perceptible improvement. Some time after its discontinuance, however, it grew more rapidly, and caused greater dyspnœa and stridor. Dr. Cameron thought the accelerated growth was due to the withdrawal of the hydrofluoric acid, and began the treatment again, after which the tumor first ceased to grow, then became smaller, and now only a trace of the right lobe remains. The dose ordered by him was, at first, 15 minims, afterwards 45 minims twice daily. Generally, however, only one daily dose was taken. The treatment was continued for two years. The large dose produced nausea, which was prevented, however, by taking it after a full meal. It caused loss of flesh, but the general health continued good. He was inclined to think that, as many other drugs had been used without effect, the hydrofluoric acid was of benefit.

Dr. Carter would suggest that the method of sending out the drug might have had something to do with the long treatment required, as if sent out in glass bottles, all but the first few doses would be practically useless.

Dr. C. G. Lee suggested, from the analogy between the diseases, that hydrofluoric acid might also be found useful in post-pharyngeal disease also described by Woakes, and in Addison's disease.

New, Successful, and Palatable Medicine for Treatment of Tapeworm.

Under the above title Dr. Howard Pinkney, writing from Sharon Springs to the *Medical Record*, describes his experience with the oil of the pine needle, made from the *pinus punilio*. A hall-boy of the hotel had suffered for five years from tapeworm. He had been treated for four years in New York, but never had succeeded in getting rid of over four feet of links at a time. Dr. Pinkney not being able to get any male fern, pelletierine, or pumpkin seeds, therefore tried the following experiment: "The patient fasted from breakfast, and at 9 p. m. he was given one teaspoonful of oil of the pine needle in half a glass of milk. The following morning, as there no perceptible action of the medicine, the dose was doubled. This, the boy said, had a most agreeable taste. One hour later he took a dose of castor oil, and in the course of two hours after this he passed an entire tænia solium measuring fifteen feet six inches in length, and one-half inch at its broadest part, gradually tapering down to almost a thread. To be positive that none remained behind, he was given two teaspoonfuls more, but no sign of any worm or part thereof passed. "This oil," writes Dr. Pinkney, "contains no turpentine, is fragrant in its odor, and when mixed with milk very agreeable to the taste. It produces no strangury, tenesmus, or other unpleasant or distressing symptoms. The patient can generally pursue his ordinary avocation." The correspondent would be pleased to know if any of our readers have ever read or known of its use in similar cases.

Dyspnœa in Bright's Disease.

Renal asthma is occasionally heard of, and this really means the dyspnœa of Bright's disease, hence it will be interesting to read the conclusions of Dr. R. P. Howard presented to the late meeting of the Canada Medical Association. He believes—

1. That marked dyspnœa might occur in Bright's disease, not due to gross lesions in heart, lungs, or pleura.

2. That it might be (*a*) a continuous dyspnœa, or (*b*) paroxysmal in character, resembling spasmodic asthma; and (*c*) that these types might occur in the same case, but the continued variety was more frequent than the asthmatic.

3. That these forms of dyspnœa might occur as the prominent symptoms of renal disease, and their origin might escape recognition if the urine be not carefully examined.

4. That the Cheyne-Stokes' respiration was often a symptom of Bright's disease, and that it occurred both in the acute and parenchymatous, and in the chronic interstitial nephritis.

5. That while the Cheyne-Stokes' breathing was usually an evidence that the fatal issue was near at hand, it might occur in a chronic form, and might recur for weeks, and, perhaps, even for years.

6. That these several forms of dyspnœa were due to that defective renal elimination called uræmia.

7. That, in the acute form of Bright's disease, serious or fatal dyspnœa might sometimes occur in connection with effusion into the submucous membrane of the larynx—so-call œdema glottidis.

A New Operation for Removal of Vesical Calculus in the Female.

This operation, devised by Surgeon-Major T. Beaumont, can be best described by transcribing the case which he reports in the *Brit. Med. Jour.*, October 4, 1884:

Nundibhai, a girl aged nine years, was admitted into the Indore Charitable Hospital on March 6, 1875, suffering from vesical calculus. As the calculus was too large for its removal by lithectasy in a child of this age, and not liking to try vaginal lithotomy in so young a patient, it occurred to me that it would be practicable to remove the stone by a modification of the ordinary operation of lateral lithotomy in the male. Accordingly, on March 9, I placed the girl in the position of lateral lithotomy, introduced a curved staff and made an incision in the left labium, parallel with, and close to, the ramus of the pubis. This incision I deepened by dissecting inwards and upwards in the direction of the neck of the bladder, carefully avoiding wounding the vagina, till, at the membranous portion of the urethra, I felt the groove on the staff. On this, I divided the neck of the bladder, introduced the forceps, and removed, without any difficulty, a stone three-quarters of an inch in diameter. The after-progress of the case was most satisfactory. For some days, all the urine was discharged through the wound, which rapidly contracted, and healed within three weeks. The girl was discharged cured on April 1.

Chloroform Anæsthesia.

According to the Paris correspondent of the *Brit. Med. Jour.*, M. Paul Bert affirms that anæsthesia produced by chloroform exhibits two dis-

tinct periods. In the first, there is a complete loss of sensibility, unaccompanied by muscular relaxation—the organism contains but a small quantity of chloroform. In the second period, there is complete insensibility, accompanied by total muscular relaxation—the organism contains a considerable quantity of chloroform. The anæsthesia of the first period is transitory, and quickly disappears, even when the animal is not allowed to inhale fresh air. If chloroform continues to be administered, the second stage, irrevocable anæsthesia, ensues. In a normal state, the whole respiratory system works simultaneously—nose, larynx, lungs, etc. When M. Bert administered chloroform by a wound resulting from tracheotomy, he observed that the nose became rigid, and that the nostrils did not dilate; the animal was in danger, and would have died unless the application of chloroform ceased. M. Bert believes that death from chloroform results from asphyxia, which may be divided into three periods: respiration of the upper organs is arrested in the first, of the larynx in the second, and of the lungs in the third.

Blood Poisoning from a Human Bite.

It is not often that we read of a serious case of blood poisoning resulting from the bite of a human being, hence, we record the following cases which we find in the *Lancet*, Oct. 25, 1884.

A lad of eighteen, employed as a waiter at a public-house, was guilty of some misdemeanor, and while his employer was remonstrating with him, the lad, fearing a thrashing, took hold of the right hand of his master and bit him severely on the thumb. The publican dismissed the lad on the spot, had his thumb dressed, and thought no more about the matter, when a few days ago—that is, about two months after the bite—phlegmonous inflammation set in, and the patient was carried off in a few hours, death, according to the medical attendant, having been caused by blood-poisoning. In a recent quarrel between two newspaper editors in Paris, one bit the hand of the other, soon after which lymphangitis set in in the arm of the wounded patient, which was accompanied by symptoms of erysipelas, from which, however, he soon recovered.

Protracted Lethargy after Large Doses of Bromide of Sodium.

In the *Boston Med. and Surg. Jour.*, for March 13, 1884, Dr. Cutter reports the case of a patient who tried to cure himself of the morphia habit by means of an advertised "cure." He took sixty grains of sodic bromide three times a day for the first day; three doses of seventy grains on the second day; and so on. This programme was carefully followed out for a whole week, on the last day of which the patient could scarcely be made to swallow the prescribed dose. Four days later his lethargy was complete; no reflex action of any kind could be excited; nothing could be swallowed. He was treated with enemata of milk, beef-tea, small doses of alcohol, strychnia, nitre, and general faradization. On the fifteenth day the conjunctiva was found to be sensitive to touch; on the twentieth day he began to waken and urine was for the first time voided without the aid of the catheter. The patient was only temporarily broken of his morphia-craving, but ultimately resumed the habit.

The Lemon as an Antipyretic.

As of interest, in connection with our recent remarks on this subject, we note that Mr. Norman H. Forbes writes to the *Brit. Med. Jour.*, October 11, 1884, that lemons, whether in the form of decoction or expressed juice, or syrup, are much used by residents in India, as an antipyretic agent, in cases of fever, whether of a malarial, cachectic, or paludal type; and are often combined with a few grains of sulphate of quinine. The following is a usual method of preparation, when one wishes to use the expressed juice only—namely: The juice of lemons (by expression), six ounces; sulphate of quinine, twelve grains; one tablespoonful to be taken every three or four hours. This, however, is more of a "household" than professional formula; but is of great service when traveling, or at a distance from professional aid.

CORRESPONDENCE.

State Control of Medical Practice.

EDS. MED. AND SURG. REPORTER:—

In an editorial of November 1, the REPORTER discusses the question of "State Control of Medical Education," using as a text, my paper "On the Legal Control of Medical Practice by State Examination," recently read before the Medical Jurisprudence Society of Philadelphia. The tenor of the editorial is, that State Examining Boards would not be as efficacious in protecting the public from what a distinguished teacher calls the ravages of the medical profession, as would State endowment of reputable medical schools. There is in the article scarcely a conclusion that does not fully accord with my own opinions, though I disagree with some of the premises from which the conclusions are drawn. I trust you will give

space in your columns to a friendly criticism of your views.

It is thought that an unworthy candidate is equally liable to pass by favoritism either a State board or a college faculty.

I think not; because the examination of a college faculty is private, usually oral, and is conducted by each professor alone; that of a State Board should be public, written, and conducted by the board in common.

It is believed that a good memory might aid an unfit person to pass the board, because he could give a large number of categorical answers.

A State Board, worthy of the name, would depend little upon categorical answers. Practical and manipulative examinations in the dead-house, hospital ward, and laboratory, with written replies to comprehensive questions, should be the means of detecting professional ignorance.

It is stated that the two or three years' acquaintance between teacher and pupil enables the former to estimate the latter's professional attainments by examination better than could be done by one not so acquainted.

In few colleges can the majority of students be known by face or name to every member of the faculty. In my opinion such an acquaintance, when it exists, is liable to influence the examiner's mind towards the side of mercy, to the detriment of the public welfare.

It is averred that there "are altogether too many medical colleges, over which there is no State control," and that the rivalry between them tends to lower the standard of medical education. The majority of intending physicians are believed to want diplomas, and to regard the practice of medicine as a business, and hence they will get a license to conduct their business with as little trouble as possible. The necessity for reform in medical education is also said to be great. The remedy, for the present evils, proposed, is to have the legislature so endow the medical schools now existing in the State, that each professor will have a full salary, no matter whether the institution in which he teaches has one or one thousand students, and to have the fees from students turned into the State treasury after the running expenses have been defrayed.

To all of this I would cordially assent if I thought the plan, which resembles the German Universities' system, could be carried into effect at this time. There are now in Pennsylvania five medical schools, having some forty professors. To give each of them a salary of $1,500 a year would require an endowment of about $25,000 for each chair, or $1,000,000 for the five schools. This sum could hardly be obtained from any legislature, as at present constituted, even if there were a certainty of considerable income to the State from the fees of students. Moreover, if a bill of such a nature was passed and became a law, the supply of efficient professors willing to work for $1,500 a year would be so small, that the majority of chairs would be filled by incapable teachers. As this plan seems impracticable, I advocate the State examination as a means of preventing ignorant persons carrying on medical practice in Pennsylvania, and indirectly as a lever by which medical schools throughout the United States may be compelled to raise the requirements for graduation; for, undoutedly, that school which furnishes the smallest percentage of rejected candidates before the State board will attract as students the greatest number of persons who expect to practice in Pennsylvania.

Virginia has now a State examination, Ohio and Texas are endeavoring to institute one, Canada has had one for some time. As additional States of the Union follow the same course of action, the medical schools will of necessity improve their standard or fall behind in the rivalry for classes.

It is thought that political influence would vitiate the proper working of such an examining board, because the Governor of the State would have the appointing power. If politics were to have a controlling hand in the matter, I should fear the result as much as any one. Those of us who advocate the scheme have no intention of framing a bill that will allow such a contingency. Let us do as in Virginia. There the State Medical Society nominates a number of persons, outside of whom the appointing power cannot go in making a selection. In that State the Governor makes the appointment from such nominees. But it would, I think, be preferable to have the Supreme Court of the State given this power.

My belief in the advantage accruing to the profession and to the public by the enactment of a law requiring all *new* comers to pass a State examination is very great. It would limit the overcrowding which is now going on, and would supply the public with physicians of greater experience and education. The plan advocated by the REPORTER is better, I admit; but its realization is, I fear, too distant. We *can* secure a State examination by united effort; and probably this winter, if every one in the profession will lend his aid. Subsequently we may succeed in obtaining State endowment of the schools.

JOHN B. ROBERTS, M. D.
1118 *Arch St., Philadelphia.*

Strangulated Diaphragmatic Hernia.

EDS. MED. AND SURG. REPORTER:

I was called in the evening of Oct. 16 to see J. C., whom I found suffering from symptoms of colic, with some nausea and vomiting during the evening. I gave him morphia which partially relieved the distress. He had been wounded through the left side by a ball during the late war. During the day he had been lifting hard, and was suddenly attacked with pain in the region of the stomach.

17th, 9 a. m. Found patient easier; temperature and pulse normal. Ordered hydrg. chlor. mite. gr. x, comp. ext. colocynth gr. v, every 4 hours. 5 p. m. much the same; ordered enema and powders continued.

18th, 9 a. m. Pulse 130, temperature 102. Symptoms of pleuritic effusion; no action of the bowels. Used enema again and added pulv. opii 1 gr. to cathartics, and hop poultice to side. 5 p. m. Effusion in the chest quite marked. Temperature and pulse same; no action of bowels, considerable tympanites. Continued same treatment and asked for consultation, but the patient was not willing for it.

19th, 9 a. m. Great pleural effusion and tym-

panitis and no acting of the bowels, suffering principally from the distension of the two cavities. Died at midnight.

Autopsy 12 hours after death disclosed a diaphragmatic hernia of about 12 inches of the transverse color, into the left side of the chest at the point where the diaphragm had been wounded; the colon was adherent to the abdominal surface of the diaphragm at the edge of the aperture. There was an enormous effusion into the pleural cavity but no adhesive lymph coating the walls. The entrails were distended above and empty below the stricture.

There was no stercoraceous vomiting. The contents of the stomach were fæcal the first evening and not much pain after the first evening. The suffering at the last was mostly from the interference with the breathing from the distension.

W. S. Dodd, M. D.

Amity, Pa.

News and Miscellany.

Harvey's Forecast of Coming Events.

As a means of estimating the largeness of Harvey's mind and the wide range of his vision, and how much there was that he "saw," but scarcely can be said to have "looked at," we note the following from Dr. J. Russell Reynolds' "Harveian Oration," published in the *British Medical Journal*, October 25, 1884:

"We find him saying, 'In general, the first processes of nature lie hid, as it were, in the depths of night, and, by reason of their subtlety, escape the keenest reason no less than the most piercing eye' (*Anatomical Exercises on the Generation of Animals*, p. 225). In another paper, 'All living things . . . . derive their origin from a certain primary something or primordium, which contains within itself both the "matter" and the "efficient cause," and so is, in fact, the matter out of which, and that by which, whatsoever is produced is made' (*Thesis on the Uterine Membranes and Humors*, p. 554). Again, 'It appears advisable to me to look back from the perfect animal, and to inquire by what process it has arisen and grown to maturity, to retrace our steps from the goal to the starting-place; . . . so that we shall perceive from what primary matter and from what efficient principles, and in what way from these, this plastic form proceeds. . . . . .' (*Introduction to Exercises on the Generation of Animals*, p. 163). Further on, in the same paper, we find him saying, 'Man comes into the world naked and unarmed, ... as if nature had desired that he should be guided by reason rather than be driven by force; therefore she did endow him with understanding, and furnish him with hands, that he might himself construct what was necessary to his clothing and protection. To those animals to which nature has given vast strength, she has also presented weapons in harmony with their powers; to those that are not thus vigorous she has given ingenuity, cunning, and singular dexterity in avoiding injury.' (*Ibid.*, p. 425.) In connection with this, he proceeds to mention the 'ornaments . . . . offence weapons, teeth, horns, spurs, and other implements employed in combat . . . . the subject of dispute being no empty or vain-glorious matter, but the perpetuation of the stock in this line or that; as if nature intended that he who could best defend himself and his should be preferred to others for the continuance of the kind.' (*Ibid.*, p. 425.)"

"In the passages just read, we have, as it appears to me, very much the same ideas as are now conveyed by the term 'protoplasm;' 'the relation of man and animals to their environments;' and the doctrine of 'the survival of the fittest.'"

With reference to the significance of the primordium, the protoplasm, as seen by Harvey, let me read another passage from his writings. Speaking of the lowest forms of life known to him, he says: "These have no heart, as not requiring any impeller of nourishment into the extreme parts; for they have bodies which are connate and homogeneous, and without limbs; so that, by contraction and relaxation of the whole body, they assume and expel, move and remove the aliment . . . . The whole is used as a heart, or the whole animal is a heart." (*An Anatomical Disquisition on the Motion of the Heart and Blood*, p. 76.) Further on, "All local motion proceeds from, and has its original, in the contraction of some part." (*Ibid.*, p. 81.) Here we have, as it seems to me, an account of the simplest form of life; his counterpart of the "amœba," as we may find it described in the most modern and, to my mind, one of the most able text-books of physiology of our day. (Introduction to Michael Foster's *Text-book.*)

Micro-Organisms and Alkaloids, which Render Food Poisonous.

Dr. Cameron read a paper on this subject before a recent meeting of the Dublin Sanitary Institute in which he dealt with the various minute organisms which are to be found in food of various kinds. He cited instances in which persons had been poisoned by impure water and bread and meat which were tainted and affected by the presence of minute organisms. The statement which had been made so often, that two per cent. of pigs in Ireland were affected with measles, did not, he observed, hold good, at least in recent years. Not one in a thousand Irish pigs was infected with the "measles." Trichinæ, the organisms which had been discovered in pigs in their free state, were easily destroyed by heat; but, in their encysted condition, they resisted the action of for a longer time. The ova of the parasite was heat difficult to destroy, and it was therefore advisable to boil pork, ham, bacon, and sausages much more thoroughly than was usually the case, if we desired to secure immunity against invasion of trichinæ spiralis. Improperly washed salads, and other raw vegetables, and unfiltered water, often afforded an entry for parasites into the human body. Tuberculosis, or consumption, was now generally admitted to be contagious. The cause of the disease was the introduction into the body of a minute organism, which Dr. Kock had termed bacillus tuberculosis. It had been generally admitted that the milk of tuberculous cows was a common cause of tuberculosis in man, especially children. Food, in a putrid state or incipient condition of decomposition, often pro-

duced forms of septicæmia or blood-poisoning, of which the most common symptoms were choleraic. In conclusion, he recommended a systematic and thorough examination of food in order to prevent outbreaks of disease. Some means should be devised in order to combat those who traded in impure articles of food, which were so detrimental to the healthiness of the people.

"Hambro" Sherry.

It would seem that there is no end to adulterations, for we now read in a foreign exchange that Dr. List has recently contributed an article to the German *Archiv für Hygiene*, on "The Fabrication of Sherry," a very profitable branch of industry carried on at Hamburg, chiefly for the Dutch and British markets. Dr. List has analyzed samples of good sherry, of adulterated sherry, and of a purely artificial product sold as sherry. In the adulterated samples, sold at Hamburg as a superior wine, there was a small proportion of the real Spanish wine, but the phosphates, tartrates, and other salts that are found in good sherry, and contribute towards its delicate flavor, were almost entirely absent, and were replaced by table-salt. The artificial wine was found to be entirely composed of sugar, water, spirits of wine, and table-salt. Thus, "Hambro' sherry" is in no way actually poisonous, although clearly unwholesome for therapeutic and dietetic purposes; but the adulterated sherry, containing imperfectly-fermented spirit, is far more mischievous to the consumer. Since sherry has been made a "bar-wine," the demand for that liquor has so increased in England, that much highly-adulterated and artificial wine is imported to meet the demand.

Women Internes in the Paris Hospitals.

The proverbial gallantry of Frenchmen does not seem to hold good in connection with women physicians. In this city, women have been made eligible to the posts of resident physicians in one of our largest hospitals, but it would seem that this privilege has not been accorded them in Paris, for from one of our foreign exchanges we learn that the lady students of Paris are getting up a petition to be allowed to compete for the situation of *interne*, or house surgeon, in the Paris hospitals. The *internes* are annually appointed by competitive examinations, and fill their post during four years, acting in many cases as substitutes to the physicians and surgeons of the medical staff. Up to the present time these honors had been reserved to the male sex; but the lady students, with that pushing tendency which have always characterized the female element, now insist upon "equal rights."

The Examination of the Blood as an Aid to Diagnosis in Acute Disease.

Before the French Association for the Advancement of Science (as we learn from the *London Medical Times*) M. Hayem read a very interesting paper on this subject. His idea is to watch the phenomena of coagulation under the microscope, and thus to estimate the quantity of fibrin the blood contains. After describing the apparatus he uses, he laid down certain general principles as the result of his studies. If the blood was found to coagulate without giving rise to a fibrinous reticulum, pyrexia might safely be diagnosed, probably typhoid fever; if, on the other hand, there was an increase or thickening of the fibrin of the blood, typhoid fever could be excluded. In other febrile states the fibrin was increased, and this fact served as a diagnostic point differentiating them from typhoid fever. Some inflammatory diseases, however, formed an exception to the rule, and were not accompanied by any increase in the fibrin. As an instance of such exception he mentioned typhoid pneumonia, but when pressed for an exact definition of this disease, as apart from acute pneumonia, he was obliged to admit that the matter was one of great difficulty.

Items.

—The late Countess Bose, of Kassel, has left to the University of Berlin, 780,000 marks as a fund for the use of indigent medical students.

—Dr. Paul Grawitz, of Berlin, assistant at the Pathological Institute, under Virchow, has been appointed to the charge of the Carnegie Laboratory, Bellevue Hospital Medical College.

—Chicago established last summer a floating hospital, upon which twenty-one thousand four hundred and eighty-nine persons were cared for and treated.

—The French lady medical students have an active champion in M. Paul Bert, who is seeking to secure for the ambitious fair ones the privilege of attending the wards of the Paris hospitals.

—The *London Spectator* gives an account of a Dr. Samuel Rabbeth, of London, who sucked the diphtheritic membrane out of a trachea tube to prevent the suffocation of his patient. He caught the diphtheria himself and died.

—There will be sold on November 28th and 29th, at 3 p. m., at Moses Thomas & Sons, No. 137 South Fourth street, a medical library of valuable works, among which is a complete set of the Philadelphia Medical and Surgical Reporter up to 1884.

—Dr. Giddings, of Maine, repsrts (*Medical Record*) an ovarian tumor developed within eighteen months in a woman ninety years old. He fitly queries: "Who has seen so old a person develop an ovarian tumor?"

—*Harper's Weekly* publishes an excellent portrait of Dr. Christopher Columbus Graham, of Louisville, Kentucky, who recently arrived at the age of one hundred years. His fellow citizens celebrated the occasion by tendering him a banquet.

—Before undertaking a post mortem, Dr. Chevenger recommends the holding the hands over strong liquid ammoniæ, when the smarting which ensues will reveal all sensitive or abraded places that need a touch of caustic before beginning the examination.

—At a recent meeting of the Paris Acadèmie de Médecine the venerable Ricord made some remarks upon the cholera. He believed that it was

not contagious, and that it originated *de novo*, and was not always imported. Ricord's experience was during the epidemic of 1832. His views are in accord with those of Jules Guérin.

—An experimental and clinical study on a new method of producing anæsthesia is the subject of a work, recently published, from the pen of M. Colombel. A combination of atropine (two centigrammes), morphia (twenty centigrammes), and chloroform (twenty grammes) is the mixture recommended. Some of the surgeons at Lyons speak very favorably of its use.

—At the meeting of the Berlin Medical Society on the 15th of October, the president, Prof. Virchow, referred to the conference upon cholera held in July, when Dr. Koch detailed his experiences upon the cholera and its bacillus. He added, that in spite of recently-published statements, Dr. Koch still adhered to his belief in the specificity of the comma bacillus.

—Dr. Wm. Gonnermann, the joint author with Professor Rabenhorst, of the Mycologia Europæa ("The European Fungi"), a highly valued work, died a short time since, at Coburg, at the age of seventy-eight. The last few years of his life were spent in an extended study of the cryptogams, and it is hoped that his notes will be a very valuable accession to the existing knowledge on this subject.

—The death is announced of Mr. Charles Barham, the oldest physician in Truro, at the age of eighty. Mr. Barham graduated as M. B. at Cambridge in 1827, and afterwards studied in Edinburgh and Paris. In 1860 he proceeded to the degree of M. D. He was a justice of the peace for Truro, a Vice-President of the Royal Institution of Cornwall, and Consulting Physician to the Royal Cornwall Infirmary.

—Science has to regret the death of Dr. Heinrich Neumann, Professor of Psychology at the University of Breslau, in his seventy-first year. He was recognized in Germany as one of the leading authorities on mental disease. Besides his contributions to strictly professional literature, he had also, by various monographs, especially one on Lear and Ophelia, taken a place among the numerous contributors in Germany to Shakspearian criticism.

—The "golden autumn days," of which poets rave, are here, and nature certainly is trying to make herself very agreeable; but the great need of the season is held back. A crisp frost to kill off the noxious germs and vapors incident to decaying vegetation, would prevent much future trouble. A point to be remembered is that October and November, no matter how inviting outdoors, are not July, and needless exposure after nightfall should be avoided. It is from among those who disregard this fact that the victims of malarial disorders are recruited.

OBITUARY NOTICES.

SAMUEL A. FISK, M. D.

Dr. Samuel A. Fisk, aged sixty-three, ex-President of the Massachusetts Medical Society, Lecturer at Smith College, and trustee of the Clark Institute for Deaf Mutes, died at Northampton, Mass., November 16, 1884, of organic disease of the heart.

DR. AUGUSTUS H. ABERNETHY.

Dr. Augustus H. Abernethy, one of the most distinguished physicians of Bridgeport, Conn., died suddenly of heart disease at his home on November 9, 1884, at the age of forty-six. He was a native of Litchfield, was graduated at the Yale Medical School, served as assistant surgeon in the navy during the war, and has since built up a practice and a reputation as an obstetrical physician and as a surgeon. He was a member of the City Board of Health, the City Board of Education, and the Fairfield County and the State Medical Associations.

HENRY GIBBONS, M. D.

Dr. Henry Gibbons died on Wednesday, November 5th, at his old home in Wilmington, Del., aged 76. He graduated in Medicine from the University of Pennsylvania in 1829, and located in Wilmington. In 1844 he removed to Philadelphia, and in 1850 settled in California. He was one of the founders of the Medical College there and occupied in it the chair of the Practice of Medicine and Medical clinics, and also edited, lately in conjunction with his son, Dr. Henry Gibbons, jr., *The Pacific Medical and Surgical Journal*, of which he was the founder. All his life he was a devoted member of the Society of Friends, and within a few weeks before his death frequently addressed its assemblies. His death occurred while he was on a visit to the old homestead at Wilmington, now the property of his brother-in-law, Mr. Henry L. Tatnall. His medical friends in that city have prepared and published a memorial of his long and useful career.

MARRIAGES.

OFFENBACH—AARON.—November 12, 1884, in New York city, by Rev. Dr. Kohler, Dr. Robert Offenbach and Florence B. Aaron, formerly of this city.

DAVY—WATT.—November 12, 1884, in this city, by Rev. R. D. Harper, D. D., Dr. Thomas H. M. Davy, of Baltimore, and Grace M., daughter John H. Watt, of this city.

SATTERTHWAITE—BANKS.—November 13, 1884, in New York, by Rev. William M. Paxton, D. D., Thomas E. Satterthwaite, M. D., and Isabella, daughter of the late James Lenox Banks, M. D.

WHITNEY—VAN DOREN.—November 11, 1884, in New York, at Trinity chapel, by Rev. Dr. Walter Mitchell, Dr. Guy Fairfax Whitney, of Virginia, and Miss Alice Horn Van Doren, daughter of the late Dr. Dikeman Van Doren, of this city.

DEATHS.

ABERNETHY.—November 9, 1884, in Bridgeport, Conn., suddenly, of angina pectoris, Augustus H. Abernethy, M. D.

DUFFIELD.—October 21, 1884, in McConnellsburg, Pa., Dr. Samuel Elliott Duffield, in the 64th year of his age.

HOSFELD.—November 9, 1884, at Cape May Point, N. J., of typhoid fever, George Hosfeld, M. D.

HUNT.—November 3, 1884, at his residence, Price Hill, Cincinnati, Ohio, Dr. Samuel P. Hunt, in the 83d year of his age.

PORTER.—November 9, 1884, in Skeneateles, N. Y., Wm. Porter, M. D., in the 55th year of his age.

MONTGOMERY.—November 8, 1884, at Rochester, N. Y., Harvey F. Montgomery, M. D., aged 66 years.